Evaluation of the implementation of investments in progress measures and progress indicators of the transport development program of the Ministry of Transport and Communications of the Republic of Lithuania, the administrator of the 2022–2030 development program

Final report summary

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Smart Continent
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Summary

The evaluation is carried out by Smart Continent Management Insitute UAB (hereinafter: the Evaluator) in accordance with the service provision agreement signed on March 28, 2025, with the Ministry of Transport and Communications of the Republic of Lithuania (hereinafter: the Client, MoT) for the provision of services for the implementation of investments in progress measures (hereinafter: PM) and the assessment of progress indicators (hereinafter: the Assessment) for the 2022–2030 development program managed by the Ministry of Transport and Communications of the Republic of Lithuania. The service provision contract is financed by technical support funds from the EU investment program for 2021–2027.

Evaluation Need. To achieve the strategic objectives and targets of the National Progress Plan (hereinafter: NPP) for 2021–2030, the MoT has prepared a transport development program (hereinafter: Program) and planned PM for its implementation. The implementation of these PM contributes to the achievement of different indicators; therefore it is important to determine their suitability for achieving strategic objectives and the adequacy of investments. Several ministries often contribute to the achievement of the same indicators by pursuing the strategic objectives of the NDP and implementing the activities/sub-activities (lt. *poveiklė*) of the PM in their sector. During the evaluation, it is advisable to assess the compatibility and interdependence of the investments planned by different ministries and to anticipate risks so that investments are targeted and do not overlap. The assessment will help to evaluate whether the interventions are effective and targeted at the right areas of transport, whether they are coordinated, and whether the investments are appropriate for achieving the indicators. The joint national vision for the transport sector and a clear priority for development will help to prepare properly for the new funding period.

Evaluation aim, scope, and timeframe. The evaluation aims to evaluate the implementation of the NPP's strategic objective 5, "Improve internal and external transport, energy, and digital connectivity," Strategic Objective 6: Ensure good environmental quality and sustainable use of natural resources, protect biodiversity, mitigate Lithuania's impact on climate change and increase resilience to its effects, and Strategic Objective 10: Strengthen national security. progress in the implementation of indicators in order to determine the suitability of the planned progress measures and the adequacy of investments to achieve the strategic objectives. The assessment covers only 10 of the 13 PMs, as 3 PMs have not yet been approved at the time of the assessment – they are being implemented through ongoing projects or other measures. The evaluation is based on data from the European Union Investment Management Information System (hereinafter: INVESTIS) as of July 1, 2025, and in accordance with the current versions of legislation and documents.

Evaluation objectives. The evaluation objectives include a) analyzing the suitability of progress measures activities; b) assessing the compatibility of progress measures; c) determining the effectiveness of progress measures; d) assessing the efficiency of progress measures implementation; e) identifying priority transport areas for the next funding period and presenting a model for directing investment so that the transport system functions as a coherent and integrated mechanism; f) presenting conclusions and recommendations that would improve the use of investment in the future.

Evaluated PMs. The following PMs are evaluated: a) No. 10-001-05-03-01 "Improving road transport connections"; b) No. 10-001-05-03-02 "Improving rail transport connections"; c) No. 10-001-05-03-03 "Improving air transport connections"; d) No. 10-001-05-03-06 "Improving traffic safety"; e) No. 10-001-05-03-07 (RE) "Improving traffic safety on local roads and streets"; f) No.

10-001-05-04-01 "Increasing the value created by the transport system and the efficiency of infrastructure use"; g) No. 10-001-05-04-02 "Promoting the development of advanced electronic communications technologies and next-generation communications networks (including 5G communications)"; h) No. 10-001-06-01-01 "Promoting the use of alternative fuels in the transport sector"; j) No. 10-001-06-01-02 "Promoting sustainable mobility"; k) No. 10-001-06-01-03 (RE) "Promoting sustainable mobility in cities."

It should be noted that the following PMs have not been evaluated (approved): No. 10-001-05-03-04 "Improving water transport connections"; No. 10-001-05-03-05 "Developing and modernizing border control points"; No. 10-001-10-02-01 "Adapting the TEN-T network for international military mobility."

EVALUATION METHODOLOGY. The evaluation is carried out at the level of PM, their activities/impacts and indicators, in four stages. The evaluation is based on theory-based impact assessment and modeling. The evaluation uses methods of intervention logic and cause and effect, content, secondary sources, monitoring and statistical data, case studies, cost-benefit analysis, surveys, interviews, and focus group discussions. Expert assessment is used to formulate the evaluation recommendations and conclusions. The evaluation methods are selected considering the objectives and questions of the evaluation and are coordinated with each other to ensure the reliability of the results.

The evaluation was carried out on the basis of the NPP, Program, and PM descriptions approved by July 1, 2025, and data for the period up to that date, therefore only those projects for which contracts were signed before the specified date were included in the assessment. As the actual results of the projects were not yet known at the time of the assessment, it is based on the data in the signed contracts, i.e. the indicators and funding amounts specified in the contracts. In addition, due to data gaps related to projects financed from the national budget (e.g., the state budget or the Road Maintenance and Development Program), the relevant activities were not included in the assessment.

EVALUATION OF PM ACTIVITIES ELIGIBILITY. This section off the final report assesses the eligibility of PM activities by analysing whether the planned activities and sub-activities are adequate to achieve the planned indicators, whether they are consistent with national strategic documents, and whether they respond to the needs of the target groups. The assessment revealed significant systemic shortcomings in the planning documents, particularly in relation to the structure of indicators, the links between activities and indicators, and the involvement of target groups.

Firstly, it was found that the PM descriptions lack consistency in the logic of assigning indicators. In total, the PM has **38 ACTIVITIES AND 62 SUB-ACTIVITIES, BUT AS MANY AS 39 ACTIVITIES AND SUB-ACTIVITIES HAVE NO RESULT INDICATORS SET, AND 2 ACTIVITIES HAVE NO INDICATORS SET AT ALL**. This means that more than half of the activities formally have no clear measurement mechanism, although according to the currently applicable Strategic Management Methodology, each activity must have a result indicator. This discrepancy can be partly explained by the fact that the PMs were prepared according to the previous version of the methodology, in which indicators were mandatory only at the PM level, but in the current context this makes it difficult to assess progress and determine the contribution of activities.

Furthermore, some PM indicators are, by their nature, product rather than result indicators. This means that they measure the implementation of activities, but not their impact. For example, some PMs only specify infrastructure units (km, units), but do not include indicators that would show the real impact – changes in safety, mobility, or environmental protection. A particularly striking

example is PM No. 10 001 05 04 01, which has no result indicators at all, even though its objective – to increase the value created by the transport system – requires clear impact measures. This shows that some activities are not properly designed in terms of indicator logic.

The analysis also revealed discrepancies between the NPP, the Program, and the PM descriptions of indicators. Some of the Program indicators have not been transferred to the PM, and some PM indicators are not linked to activities. This is particularly relevant after the 2024 NPP amendments, when some indicators were removed but the Program was not updated. This has led to a situation where two PMs – 10 001 05 04 01 and 10 001 05 04 02 – currently have no direct link to the NPP objectives, although such links were provided for in the initial version of the NPP. This shows that the planning documents are not sufficiently synchronized and the system of indicators is fragmented.

When assessing the suitability of activities for achieving the indicators, it was found that some activities are not clearly linked to the result indicators, although they actually contribute to them. The analysis showed that there are actual links, but they are not enshrined in the documents. This complicates both planning and evaluation, as it is unclear which activity is responsible for which change. It is therefore recommended that the links between activities and indicators be clearly defined in the PM descriptions to ensure consistent and transparent progress evaluation.

When assessing the compliance of the PM with national strategic objectives, it was established that most of the measures contribute to the objectives of NPP 5, 6, and 10. Two PMs contribute to all three objectives, three to two, and the rest to one. The PM is also consistent with other strategic documents: Lithuania 2050, the General Plan of the Territory of the Republic of Lithuania, the National Energy and Climate Action Plan, and the EU Investment Program. All of these documents emphasize the modernization of transport infrastructure, the promotion of sustainable mobility, the development of alternative fuels, road safety, and digital infrastructure—areas covered by the PM under evaluation. This shows that the measures are strategically sound and focused on national priorities.

Finally, when assessing the compliance of the PM with the needs of target groups, it was found that target groups were identified unevenly. In some PMs, they are clearly named, while in others they are implied based on the nature of the activities. Target groups were most often identified according to the problems being addressed (e.g., pollution reduction, mobility deficiencies, traffic safety) or according to planned projects (e.g., residents of railway sections, bicycle path users). Interviews with social partners showed that target groups were involved in the planning process, but usually only after the PMs and the problems had already been formulated. This means that target groups did not have the opportunity to influence the identification of problems, and their needs were assessed to a limited extent. Partners also noted that the Program is more focused on implementing EU requirements than on the actual needs of target groups.

In summary, it can be stated that the null hypothesis is rejected – not all PM activities and sub-activities are suitable for achieving the planned indicators. The main problems are related to the lack of indicators at the activity level, the incompatibility of indicators and activities, discrepancies between the NDP, the Program, and the PM descriptions, and the limited involvement of target groups. In order to ensure effective implementation of the PM, it is necessary to review activities, clearly assign result indicators, update the Program in line with changes to the NPP, and strengthen the involvement of target groups at an early stage of planning.

EVALUATION OF PM COMPATIBILITY. This section of final report assesses the compatibility of PMs, their interaction with measures taken by other ministries, and the interdependence of investments. The analysis shows that the MoT PMs are essentially consistent with each other and

that the risk of duplication is minimal. Most measures complement each other in pursuit of common indicators, particularly in the areas of road safety and GHG reduction.

First, it was established that there are two NPP target indicators to which more than one MoT PM contributes: **NUMBER OF FATALITIES IN TRAFFIC ACCIDENTS AND CHANGE IN GHG EMISSIONS FROM TRANSPORT**. There are two PMs in the field of road safety – one focused on national roads and the other on local roads. Both measures implement different but complementary engineering measures, so there is no duplication. There are four PMs in the field of GHG reduction: railway electrification, alternative fuel infrastructure, sustainable mobility, and sustainable mobility measures in cities. All of them contribute to the overall goal through different mechanisms and are therefore considered to be coordinated.

The analysis also showed that the MoT PM is consistent with the measures of other ministries. The nitrogen oxide (NOx) reduction indicator is implemented in cooperation with the Ministry of the Environment (hereinafter: MEn), which finances the purchase of less polluting transport and sustainable mobility measures. The public transport accessibility indicator is linked to the PM of the Ministry of the Interior (hereinafter: MI), which focuses on the accessibility of public services and transport solutions in the regions. These interventions complement the activities of the MoT, as they focus on different territories and functions. It has also been established that the MoT contributes to broader cross-sectoral objectives together with the Ministry of Economy and Innovation (hereinafter: MEI) and the Ministry of Energy (hereinafter: ME), but their activities do not overlap as they are carried out in different areas (industry, buildings, energy).

When assessing the compatibility of investments, it was found that most PM activities are not directly dependent on each other. The only exception is **ALTERNATIVE FUELS PM**, where the promotion of electric vehicle purchases depends on the development of charging infrastructure. If the development of the infrastructure is delayed, measures to promote the purchase of electric vehicles become less effective. This has been identified as the main risk of interdependence. No such interdependence has been identified in other PMs – activities can be implemented independently, and their results do not depend on the pace of implementation of other measures.

When analysing recurring indicators among PM, three areas were identified where indicators recur: **GHG REDUCTION, BLACK SPOT REMOVAL, AND NUMBER OF BICYCLE INFRASTRUCTURE USERS**. In all cases, the activities complement each other: GHG reduction is achieved through different modes of transport and technologies; black spot removal is carried out on both national and local roads; bicycle infrastructure is developed in both cities and regions. No duplication was found.

Finally, when assessing the compatibility of interventions by the MoT and other ministries, it was found that although the indicators are similar, the activities are focused on different areas and target groups. For example, the development of bicycle paths by the MoT is focused on transport and everyday mobility, while that of the MI is focused on tourism infrastructure and the accessibility of industrial areas. Measures to reduce GHG emissions also differ: MoT is active in transport, the MEn in buildings, the ME in energy, and the MEI in industry. Therefore, no risk of duplication has been identified.

Overall, all lines of analysis confirm the null hypothesis – **MOT PM ACTIVITIES ARE COORDINATED WITH EACH OTHER, ARE CONSISTENT WITH THE MEASURES OF OTHER MINISTRIES, AND INVESTMENTS COMPLEMENT EACH OTHER AND DO NOT DUPLICATE**. The only significant dependency risk was identified in the alternative fuels PM, where infrastructure development is necessary for the effectiveness of other activities.

EVALUATION OF PM PERFORMANCE. This section of the final report assesses the effectiveness of the PM by analyzing the level of achievement of indicators, the contribution of activities, and the likelihood of achieving the final objectives. The assessment reveals very uneven progress across different transport sectors, ranging from significantly exceeded indicators to completely unachieved interim targets. When assessing the level of achievement of the indicators, it was found that some of the results significantly exceed the planned limits. The most striking examples – are the alternative fuel infrastructure, where **849%** of the interim target and **350%** of the final target have been achieved, and the number of bicycle infrastructure users, which has reached **1117%** and **141%** of the final target. However, given the limitations of the assessment (we do not have actual data on completed projects and are assessing based on signed contracts), the results of these indicators should not be evaluated: the installation of charging points is provided for in the contract with another managing authority (APVA) and should only be assessed after the calls for proposals have ended, and the assessment of the number of bicycle infrastructure users is only possible after the implementation period by performing physical measurements due to the lack of methodology.

Three indicators have already reached **100%** of the final value (e.g., noise reduction on railways, gigabit connectivity, 5G coverage on highways). This shows that interventions in certain areas are particularly successful.

In contrast, at least **6 INDICATORS** have been identified that show signs of not being achieved. For example, the TEN-T road network indicator has only reached **62%** of the interim target and **27%** of the final target, although the product indicator (TEN-T km) has already been achieved **100%**. Air transport indicators are also lagging behind – **6,6 MILLION** passengers were served in 2024, and the interim target (7,5 million) for 2025 is **0,9 MILLION** short. The share of electric vehicles in the passenger car fleet is only **1,92%,** although the interim target is **2,7%** and the final target is **20%**. Road safety indicators are also risky – only **1 OUT OF 14** intersections and **1 OUT OF 30** weather stations have been reconstructed under the contracts, so the likelihood of achieving the black spot reduction targets is low.

An analysis of the contribution of activities shows that most activities have clearly defined indicators and contribute to progress. In the case of road transport PM, the activity "Improvement of the TEN-T core network" generates a larger share of progress than the improvement of the global network – **62%** and **38%** of the user indicator, respectively. Meanwhile, it was not possible to assess the contribution of air transport activities due to a lack of data, but according to the PM description, it is known that the construction of a new terminal will have the greatest impact. In the area of sustainable mobility, the development of bicycle infrastructure generates particularly significant progress, while public transport renewal activities have not yet begun, so their contribution is zero.

When assessing the likelihood of achieving the targets, it was found that some of them may not be achieved by 2030. Most of the lagging indicators have not even reached **50%** of their final value, and the implementation of some interventions has not yet begun. The risk is increased by funding uncertainty, project delays, lack of contractor capacity, and dependence on external factors (e.g., passenger flow dynamics). Success factors include well-planned projects, adequate funding, and political continuity.

EVALUATION OF PM EFECTIVENESS. This section of the final report assesses the effectiveness of the implementation of the PM by analyzing the adequacy of funding, the cost-effectiveness of resource use, and the proportionality of results. The total investment volume of the PM amounts to **€4,856.3 MILLION**. According to data from July 1, 2025, **€2,709.6 MILLION** has been used, i.e., **55,8%** of the planned budget. However, the use of funds varies greatly between measures, ranging from **7% TO 120%,** which indicates a significant disproportion in implementation.

When assessing the adequacy of funding, it was found that one measure exceeded the planned budget (**120%**), one used the entire budget (**100%**), and four did not use even a third. The ratio of indicators achieved to funds used shows that most PMs are effective (ratio >1), but two areas have been identified where effectiveness is insufficient or difficult to determine. The air transport PM indicator is only **2,7%,** although **100%** of the budget has been used (**RATIO 0,03**), but here the impact of interventions and the assessment of effectiveness will only be possible after the construction of the terminal, i.e. after 2030. The achievement of 5G and communications PM indicators is **57,1%**, and the use of funds is **70,2%** (**RATIO 0,81**), but the remaining activities to be implemented are of varying importance and do not require a large budget for their implementation.

An analysis of the economic use of resources revealed significant differences between activities. Some activities have already used up almost the entire budget (e.g., improvement of TEN-T core network roads – **82%**), while others have not yet been started (e.g., asphalting of gravel roads – **0%**). Some activities exceeded the budget: the modernization of level crossings used **130%** of the funds but achieved only **40%** of the target; the electrification of public transport used **103%** of the funds but achieved **106%** of the indicator; transport innovation activities exceeded the budget by **29%**, but the indicator was exceeded by more than **4 TIMES**. The cost per unit of the product indicator also varies greatly: TEN-T road km costs **€8,39 MILLION**, bicycle infrastructure km costs **€620,000**, and the Rail Baltica technical project unit costs **€127 MILLION**.

A proportionality analysis shows that the resources allocated to some activities are not adequate for the results achieved. Some activities achieve significantly more than planned (e.g., alternative fuels, sustainable mobility), while others do not even achieve the minimum interim targets, even though the budget has been used up (air transport, 5G development, road safety). This confirms that better results could be achieved with the same costs.

PRIORITY TRANSPORT AREAS AND INVESTMENT ALLOCATION MODEL FOR THE NEXT FUNDING PERIOD. This final report section aims to identify priority areas for future transport and propose an investment allocation model that would enable the transport system to function as a coherent, integrated mechanism. The analysis is based on EU and Lithuanian strategic documents, sectoral issues, technological trends, and the state of infrastructure.

The priorities of the Lithuanian transport sector are fully in line with the EU Green Deal, the Sustainable and Smart Mobility Strategy, and the TEN-T policy. All documents emphasize the transition to climate-neutral, digitized, and multimodal mobility. Therefore, priority is given to areas that directly contribute to reducing emissions, strengthening connectivity, and technological progress.

The railway sector is highlighted as a key future direction due to the Rail Baltica project, the need for electrification, and the necessity to shift freight from roads. In the field of road transport, priority is given to the modernization of TEN-T connections, traffic safety, and military mobility requirements. Public transport is considered an essential element of social inclusion and climate neutrality in cities, with an emphasis on electrification, service quality, and integrated ticketing systems. Alternative fuel infrastructure (electricity, hydrogen, biogas) is becoming essential for both climate goals and energy independence. Digitalisation and ITS solutions are identified as a horizontal priority necessary for effective traffic management, logistics optimisation and the integration of mobility services.

Areas related to internal combustion engines, inefficient road transport dominance, and limited potential for inland waterways are considered less promising. Priorities are determined by climate

policy, the geopolitical environment, regional connectivity, technological progress, and economic competitiveness.

An assessment of the investment allocation model has revealed that the current system is fragmented, dependent on the annual budget cycle, and does not ensure long-term planning. Infrastructure managers do not have sufficient financial autonomy, and old infrastructure often lacks sustainable financing. Public transport financing is uneven and insufficient, with EU funds mainly directed towards new projects, leaving gaps in maintenance and modernization.

The null hypothesis is rejected: the level of achievement of some PM indicators is insufficient, and the probability of achieving all targets by 2030 is not guaranteed. Performance varies greatly between areas, and progress depends on the pace of implementation of activities and the stability of funding.

EVALUATION CONCLUSIONS. The evaluation revealed that some PMs and their activities do not have defined performance indicators, and there are discrepancies between strategic documents and weak links between activities and indicators, which makes it difficult to assess progress. All of the PMs assessed are consistent with national and strategic objectives and do not conflict with their implementation. Target groups were identified and included in the planning process, but the needs of some of them were not met within the scope of the planned measures due to the restrictions identified, including financing conditions.

It has been established that the activities of the MoT PM are consistent with each other and do not overlap with the interventions implemented by other ministries. In cases where different ministries pursue the same indicators, their interventions complement each other and are focused on different areas. Although interdependencies between activities have been identified, they are not considered to pose a significant risk to the timely implementation of other activities.

The evaluation found that the level of achievement of some of the PM result indicators is insufficient to reach the interim or final targets. The implementation of some indicators is delayed, or activities have not yet started, which creates a risk that the set targets will not be achieved on time or will be achieved only partially. Although the activities being implemented contribute significantly to the planned results, not all PMs have been allocated sufficient funding, and in some cases, the use of resources has been found to be inefficient and disproportionate.

In addition, it has been found that when new infrastructure is installed, it is not always fully adapted to the needs of target users or is not convenient to use after installation, despite adequate legal regulation.

EVALUATION RECOMMENDATIONS. Based on the conclusions of the evaluation and the identified problems and risk factors, recommendations were formulated and classified according to their importance into the categories "know this" and "do this." The assessment found that the effectiveness of the Program and PM implementation is most affected by insufficient coordination, limited consistency between strategic documents, and insufficiently developed monitoring of results and impact. In order to increase the effectiveness of the Program, it is recommended to strengthen the coordination of the implementation of the PM in the short term, ensure the compatibility of the Program, the NPP, and the PM, and review the system of result indicators, focusing on measuring real progress. It is also advisable to re-establish a clear intervention logic between the objectives of the PM and the NPP and to develop objective criteria for assessing the impact of GHG and sustainable mobility measures.

In the medium and long term, it is recommended to increase the flexibility of the Program, not limiting it to EU-funded measures and creating opportunities to combine different sources of funding. It is also important to review the technical requirements of the funding guidelines to better reflect the needs of target groups and to strengthen the integration of sustainable mobility and road safety measures. In order to achieve a more significant impact on GHG reduction, it is necessary to combine the electrification of transport with demand management, modal shift, and the use of alternative financial mechanisms, including increasing the attractiveness of public transport and strengthening the competitiveness of railways.