

*TEM Project
Strategic Plan
2017 - 2021*

[final draft]

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1 List of abbreviations

Abbreviation	Description
BIM	Building Information Modelling
CEDR	Conference of European Directors of Roads
DG MOVE	Directorate-General for Mobility and Transport
EATL	Euro-Asian Transport Links
ERTICO	European Road Transport Telematics Implementation Coordination Organization
HEEP	Highway Engineering Exchange Program
NRA	National Road Administration
Strategic Plan	TEM Strategic Plan in 2017 -2021
PIARC	The World Road Association
PCO	Project Central Office
PPP	Public Private Partnership
SDGs	Sustainable Development Goals as defined by UN
TEM	Trans-European North-South Motorway
TEM MS	TEM Project Member States
TER	Trans-European Railway
UN	United Nations
UNECE	United Nations Economic Commission for Europe

2 Executive summary

The Strategic Plan presents the TEM Project implementation roadmap for the 2017-2021 perspective. It has been drafted in view of the following circumstances:

- The TEM MS governments are facing new challenges related to international cooperation in development of new technologies, and
- An updated TEM Project implementation formula is needed in the light of a new agreement being forged between the TEM MS on the future cooperation, financing and implementation of the TEM Project.

The participants of the Project believe the initiative will foster governmental partnership in developing and maintaining road network, and possibly be used as an alternative platform to exchange knowledge and experience.

. The significance of the TEM Project is defined by its ability to serve its objectives. The significance is not possible to determine without specifying a clear perspective of the value that the TEM Project provides to its participants and UNECE. The prospect of the value of the TEM Project is based on the diagram presented below.

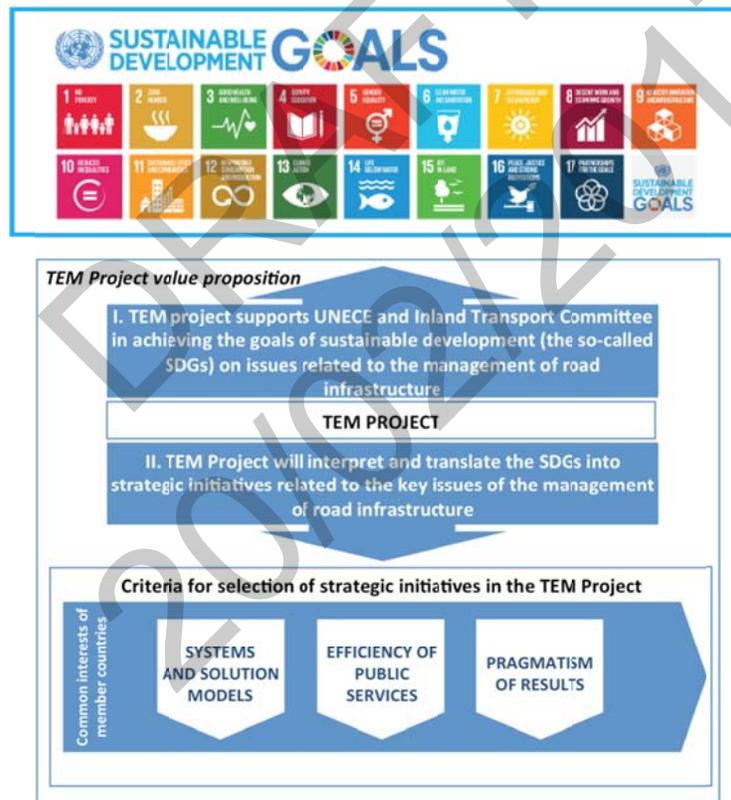


Fig. 1 Value creation through TEM Project

1. **The TEM Project supports the UNECE and the Inland Transport Committee in achieving sustainable development goals (SDGs) related to the road infrastructure management** – topics broadly defined as transportation and mobility of goods and people are essential to achieve the objectives identified by the UN in the resolution of September 25, 2015 – "Transforming our world: the 2030 Agenda for Sustainable Development". The majority of the 17 goals defined by the UN as essential to achieve sustainable development are directly or indirectly related to road

infrastructure. The TEM Project will create added value through closer cooperation with the UNECE and the Inland Transport Committee on the key matters related to the sustainable development agenda within the UN.

2. **The SDGs will be translated into strategic initiatives related to road infrastructure management.** Today, the TEM MS governments can cooperate even closer than before, as the road related challenges are similar for most MS who also face new expectations set forth by the UN agenda. Creating added value by the TEM Project in this regard will on the one hand consist in undertaking such initiatives supporting the UN sustainable road infrastructure management agenda, and on the other in standing out from similar international initiatives. Initiatives undertaken as part of the TEM Project will focus on the matters that:
- a) Constitute a common and similar challenge / problem for all the TEM MS stakeholders;
 - b) Address the most relevant, comprehensive and strategic issues relating to road infrastructure management;
 - c) Focus on what is closest to the administration – the scope and manner of providing public services;
 - d) Enable tangible results that are practical and can be used by the TEM MS and the UNECE to create new operational patterns.

The value of the TEM Project defined in this way will require a different implementation approach, in particular in the context of the principles of project management (including its organizational structure and project management rules) and the range of strategic initiatives to be implemented in the years 2017-2021. In particular, the new organizational structure entails deeper involvement of the TEM MS in the Project. Apart from the National Coordinators, new project roles such as TEM National Area Contributors and external contributors will be appointed.

3 TEM Project value proposition

3.1 Introduction

The TEM Project was established in 1977 as regional cooperation initiative for the Central and Eastern European countries. The main objectives of the Project were:

- To facilitate road traffic in Europe,
- To improve the quality and efficiency of transport operations,
- To balance existing gaps and disparities between motorway networks in Western, Eastern, Central and South-Eastern Europe, and
- To assist the integration process of European transport infrastructure systems.

These objectives were achieved through various initiatives, of which the most important were:

- The Master Plan for TEM and TER and its revised version – a document focusing mainly on the existing road infrastructure and planned investments in TEM MS,
- TEM Standards and Recommended Practice – summary of user requirements, know-how and achievements in the field of design, construction and maintenance of highways.

These and other initiatives within the framework of the TEM Project have created a significant value for its participants. They, in particular:

- Allowed the exchange of experiences in application of different solutions in relation to planning, design, construction and maintenance of roads,
- Enabled to forge a network of formal and informal relations between the government representatives in TEM fostering communication and exchange of ideas,
- Allowed to create new common solutions based on individual case studies, and new standards which were later disseminated to the other countries,
- Enabled cooperation with similar initiatives implemented under the umbrella of UNECE, in particular those relating to other modes of transportation (e.g. railroads – TER, EATL),
- Supported cooperation with other supranational institutions (PIARC, CEDR etc.) handling planning, design, construction and maintenance of roads.

Over the years, the TEM Project has proven to be valuable to its participants, and to the large extent has achieved goals defined in the Trust Fund Agreement. At the same time, the need to update the TEM Project's formula has become even more urgent in view of the following challenges:

1. The modern world is changing at a very fast pace. It is shaped by megatrends, in particular related to:
 - The rapid development and widespread use of modern information technologies in almost every area of life. New technologies revolutionise the functioning of governments, institutions, corporations and individuals,
 - New socioeconomic trends shaped by modern technologies, e.g. the "Sharing economy", enabling both quick access to knowledge, and coordinated use of existing resources,
 - Growing demand for sustainable solutions, both from the governments and the public opinion, reflected not only in declarations, but also in specific actions and legislative changes at the national level providing a new framework for future generations.

These megatrends also directly influence how governments act in the area of road infrastructure management, which requires a long-term strategic approach if only due to the size of the financial support needed.

2. The road infrastructure management involves many complex activities such as planning, construction, operation and maintenance. Decisions of individual governments in these matters shape not only the local socioeconomic and environmental situation, but also echo in the neighbouring countries and even the entire region. Therefore, there is a need to coordinate not only the network of roads and highways between countries, but also other aspects related to the management of road infrastructure. Coordination of activities in this field can take different

forms ranging from the exchange of experiences to seeking best practices for creating common standards of operations ultimately recommended by the ITC / UNECE to all government administrations.

3. Currently, the matter of road infrastructure management is not represented in a comprehensive or complex way within the ITC framework. Certain aspects of it are undertaken by some of the Working Parties, e.g.: SC1, WP1, WP5, WP6 and WP29/GRPE.
4. The TEM Project has allowed to implement some of the objectives, but the future formula needs to be tailored to the needs of TEM MS (formulated both during the project meetings, and in response questionnaires for the Strategic Plan), as well as the new challenges, including the current UN SDG agenda. TEM Project must generate added value adequate to the expenditure incurred by the TEM MS for its implementation. The value will be unique and will distinguish the Project from other forms of intergovernmental and international cooperation in the field of road infrastructure development. This condition is essential in the context of adopting the Trust Fund Agreement Attachment 2017-2021 by the TEM MS, and future financing of this initiative in the TEM MS.

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3.2 TEM Project value proposition

The facts presented above laid foundation for the new TEM Project formula spreading beyond the existing framework and objectives, extending the context of activities to a broader agenda, and defining cooperation grounds between governments. From this perspective, the TEM Project fits into the overarching goals and activities pursued by the UNECE. The TEM MS believe that the Project should be vital for intergovernmental cooperation under the umbrella of UNECE, particularly in supporting the Inland Transport Committee (including SC1, WP.1, WP.5, WP.6 and WP29/GRPE) and the governments of TEM MS in diagnosing and solving problems regarding the road infrastructure management.

The altered formula of the TEM Project should also contribute to:

- Greater commitment of the TEM MS to the Project, including the implementation of the strategic initiatives,
- Reenlisting states that had opted out from the Project,
- Extending the Project to new countries not yet directly involved, even outside Central and Eastern Europe, which will raise the rank of the Project,
- Extending the road infrastructure management framework of the Inland Transport Committee.

Creating the added value for TEM MS has been defined in the following way:

1. The TEM Project supports the UNECE and the Inland Transport Committee in pursuing the sustainable development goals (SDGs) related to road infrastructure management.

One of the key aspects currently shaping international cooperation within the UN is the matter of sustainable development. The UN resolution of September 25, 2015 – "Transforming our world: the 2030 Agenda for Sustainable Development" sets forth 17 goals considered by the international community as the most important in the context of securing the stable and safe environment for the future generations. Most of these goals (at least 12 out of 17 SDGs) can be directly or indirectly associated with the UNECE activities on inland transport development (e.g. UN inland transport legal instruments, norms and regulations).

Defining the new paramount and strategic sustainable development goals by the UN also means reshaping or adapting the existing initiatives carried out under the auspices of the UN to the new agenda. This also applies to the TEM Project and should have a direct impact on its future scope and formula of operation.

The TEM Project should, through its initiatives, support the pursuance of the UN SDGs, including:

- Goal 3. Ensure healthy lives and promote well-being for all at all ages,
- Goal 7. Ensure access to affordable, reliable, sustainable and modern energy for all,
- Goal 9. Build resilient infrastructure, promote inclusive and sustainable industrialization and foster innovation,
- Goal 10. Reduce inequality within and among countries,
- Goal 12. Ensure sustainable consumption and production patterns,
- Goal 13. Take urgent action to combat climate change and its impacts,
- Goal 15. Protect, restore and promote sustainable use of terrestrial ecosystems, sustainably manage forests, combat desertification, and halt and reverse land degradation and halt biodiversity loss.

Creating value by the TEM project in the area of sustainable development will depend on closer cooperation with the UNECE and the Inland Transport Committee on the key matters set forth in the UN agenda. The TEM project is to provide substantive support for the Inland Transport Committee and its Working Parties (particularly SC1, WP1, WP5, WP6 and WP29/GRPE) both in defining individual positions on the strategic issues related to road infrastructure management, and forging practical solutions accommodating the UN SDGs and the needs of individual TEM MS.

2. The TEM Project will interpret and translate the SDGs into strategic initiatives related to road infrastructure management.

In the opinion of TEM MS the sustainable development goals cannot be achieved within the current project framework, which should therefore be adapted to new circumstances and challenges. Such adaptation should unfold in the following two phases:

- **Phase 1 – REDEFINING THE SUBSTANTIVE SCOPE OF THE PROJECT** – The TEM project, rather than focusing on issues related to the coordination of the motorway network of in the countries of Central and Eastern Europe, should address broader issues associated with the management of road infrastructure. Although there are some international initiatives being implemented to this extent, the issue requires special and specific addressing. The TEM Project provides a perfect cooperation platform to search for new solutions between the TEM MS. It can bring together government representatives faced with similar problems in everyday management of road infrastructure that should and can be solved not only on a national level, but also require coordination on an international level.
- **Phase 2 – DECIDING ON THE STRATEGIC INITIATIVES CONSISTENT WITH SDGs AND THE NEEDS OF TEM MS** – The TEM Project will engage in the road infrastructure management issues in the context of SDGs achievement. Similar issues are also addressed by other international organizations and initiatives. While not directly related to the UN or the UNECE, these initiatives foster cooperation between governments, institutions, and private entities in the field of road and transport management. Therefore, the TEM Project value proposition needs to take note of them among other international cooperation endeavours. The TEM Project should cover the issue of road infrastructure management in a very specific scope adapted to the needs of TEM MS, and it should stand out from other similar initiatives and international organizations. From the perspective of TEM MS, the initiatives implemented under the TEM project should concentrate on the issues which:
 - a) Constitute a common and similar challenge / problem to be solved by individual TEM MS – strategic initiatives covered by the TEM Project should address only the issues identified by TEM MS as areas of common interest and joint effort of the Project;
 - b) Address the most relevant, comprehensive and strategic issues related to the management of road infrastructure – the TEM Project should focus on the problems that are interdisciplinary, systemic, and exemplary, and influence the decisions of the member governments and the national road administration concerning the road infrastructure management. This is one of the key features distinguishing the Project from other international initiatives of a similar nature – to provide solutions that can be used by governments to design or modify national solutions;
 - c) Focus on what is closest to the government administration – the scope and manner of providing public services related to road infrastructure management. In this context, the key challenge is to:
 - design a catalogue of typical public services provided by the government within the framework of road infrastructure management, and
 - Assist governments to provide these public services in an efficient and effective way.

These issues are extremely important in times of budgetary constraints not only in developing countries but also in developed countries, also in Europe. The knowledge and experience gained by the TEM National Coordinators and TEM National Area Contributors in the course of executing these strategic initiatives will be transferred onto the governmental level and could be taken into account in the designing of the new legal or organizational solutions.

 - d) Allow achieving tangible and practical results that can be used by TEM MS or the UNECE to create new operational schemes. In this context, the TEM Project will seek solutions and effects that will be specified as precisely as possible in the form of standards, guidelines, or good practices that can be used by individual countries within their own legal systems and organizational practices.

3.3 TEM Project - mission and vision

The TEM Project 2020 vision:

The TEM Project aims at obtaining the role of a substantive partner for the UNECE and the Inland Transport Committee on road infrastructure management, thus supporting the UN and TEM MS in achieving the sustainable development goals by implementing the Project strategic initiatives.

The mission of the TEM Project, defining the implementation of the vision:

The TEM Project constitutes a forum for cooperation between the governments of TEM MS, which creates standards, good practices and guidelines for systemic and strategic issues related to road infrastructure management. In its activities the TEM Project takes the perspective of national government administrations, and focuses on the issue of sustainable development.

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4 TEM Project - organizational structure and project management

4.1 Organizational structure

The new organizational structure of the TEM project has been prepared based on the following assumptions:

- The TEM Project shall remain one of the initiatives pursued under the UNECE agenda, dealing with the cooperation of European countries in the area of road transport infrastructure management,
- A new organizational role will be established within the TEM Project: TEM National Area Contributors,
- Key responsibilities will be defined for the newly created organizational units and roles.

Organizational structure of the TEM Project is presented in the figure below.

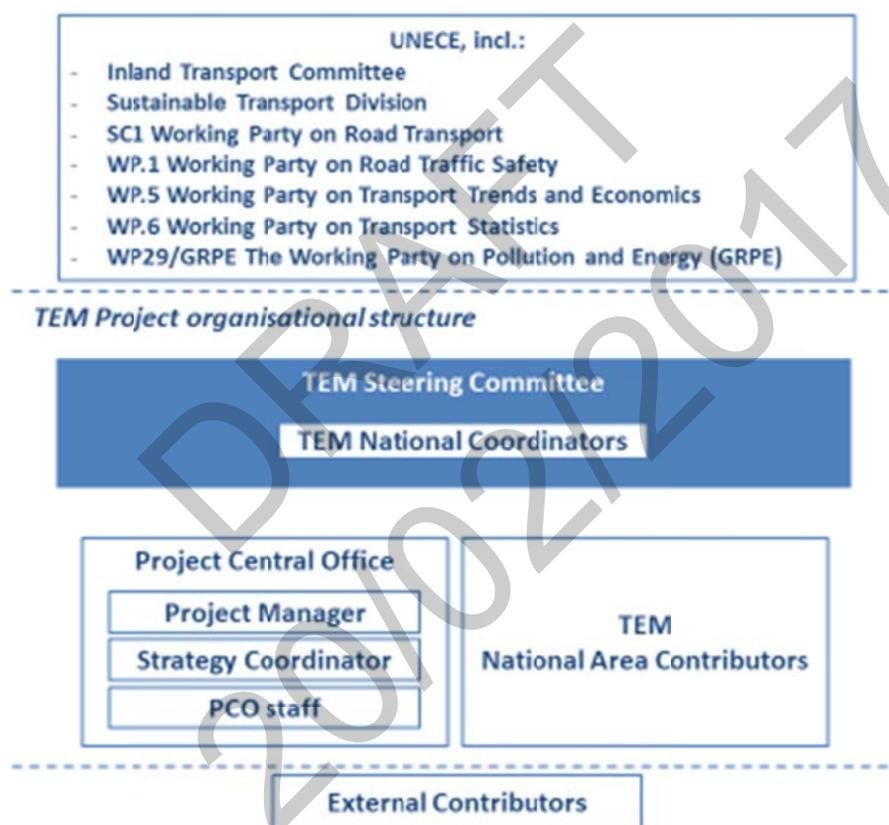


Fig. 2 The organizational structure of the TEM Project

Within the designed organizational structure the following responsibilities of organizational units and roles in the Project are expected:

1. The TEM Project shall be one of the intergovernmental initiatives implemented under the UNECE and ITC. The Project, unlike other ITC initiatives, shall focus on the selected strategic questions related to the road infrastructure management. The TEM Project shall therefore:
 - Present the implementation progress and results of various strategic initiatives during the ITC meetings,

- Cooperate with other initiatives within the ITC framework (such as SC1, WP1, WP5 and WP6) on the issues concerning the road infrastructure management,
 - Tackle the issues related to the road infrastructure management, which arise from other initiatives implemented by the UNECE / ITC.
2. The TEM Steering Committee shall be the body dedicated to the strategic and operational management of the Project. The TEM Steering Committee shall consist of TEM National Coordinators, supported by Regional Advisor/UNECE staff. The tasks of the TEM Steering Committee shall involve in particular:
- Adopting internal rules of operations of the Project, and strategic and operational objectives,
 - Adopting TEM Annual Report prepared by the TEM Project Manager,
 - Approving programmes of work and adopting operating budgets and financial reports on their execution,
 - Assess the work of TEM Project Manager and TEM Strategy Coordinator on the basis of TEM Annual Report,
 - Launching the implementation of strategic initiatives,
 - Adopting implementation details, including, in particular their scope and expected results of the strategic initiatives,
 - Monitoring the operational implementation of strategic initiatives at the TEM Project level,
 - Adopting periodic implementation summaries of the of strategic initiatives,
 - Coordinating operational matters associated with the current TEM Project management,
 - Communicating the current implementation progress of the strategic initiatives,
 - and functions (b), (e) and (f) stipulated in TEM Trust Fund Agreement, Attachment 1 2013-16, Annex B.
3. The TEM National Coordinators shall constantly oversee and coordinate the Project implementation in individual Member States on the operational level. The responsibilities shall involve:
- Monitoring the implementation of strategic initiatives at the country level,
 - Cooperating with the TEM National Area Contributors to support the implementation of the strategic initiatives,
 - Communicating the implementation progress of the strategic initiatives to the TEM Steering Committee,
 - Updating the contact list of TEM National Coordinators and TEM National Area Contributors from the perspective of the Member State,
 - and functions (2) to (6) stipulated in TEM Trust Fund Agreement, Attachment 1 2013-16, Annex C.
4. The Project Central Office is located in Warsaw and shall coordinate all activities carried out under the terms of this document and operate under the overall direction of the TEM Steering Committee, with guidance from the UNECE as an Executing Agency. The personnel of the PCO shall be comprised of:
- TEM Project Manager,
 - Strategy Coordinator,
 - other PCO staff provided by the host country.
5. The TEM Project Manager shall be responsible for the operational management of the TEM Project and the work of TEM Project Central Office (PCO). The TEM Project Manager shall be appointed/selected by the Steering Committee and remunerated from the Project budget. The Project Manager shall report directly to the Director of the UNECE Sustainable Transport Division. The role shall involve in particular:
- Coordinating the work of the TEM Strategy Coordinator and the project personnel in TEM Project Central Office (PCO) in the framework of various activities of the project. Ensuring the efficient maintenance and upgrade of PCO Information Technology infrastructure, such as - computers, laptops, printers, fax machines, etc., important for the smooth operation of the office;
 - Preparing the Terms of Reference for the TEM Strategy Coordinator and ensuring its implementation based on the principles of team work and integrity, as well as through the supervision of his/her performance;

- Acting as Secretary to the TEM Steering Committee sessions (Preparation of Invitation, Agenda, documents and Conclusions/Report for the TEM Steering Committee);
 - Distributing draft programmes of work and budgets for TEM Project for the approval by TEM Steering Committee and ensuring its implementation as adopted;
 - Organizing and preparing substantive (technical) and administrative reports and documentation for the consideration of TEM member countries;
 - Monitoring the implementation of the TEM Strategic Plan and the strategic initiatives and presenting the implementation status to the TEM Steering Committee;
 - Every year preparing TEM Annual Report to be submitted for approval by the TEM Steering Committee;
 - Distributing information to the TEM member countries on matters requiring their decisions well in advance;
 - Maintaining continuous liaison with the TEM National Coordinators regarding all matters concerning the implementation of the TEM Project activities;
 - Preparing the expert's report on the overall activities of the TEM Project Central Office and developments in the TEM Project during the period under review for the sessions of Inland Transport Committee (ITC), Working Party on Transport Trends and Economics (WP.5) and of Working Party on Road Transport (SC.1);
 - Keeping close cooperation with the Working Party on Road Transport (SC.1) and Working Party on Road Safety (WP.1) to ensure synergies in activities and development of concrete project proposals and activities on road safety and Intelligent Transport Systems, and to avoid overlaps;
 - Providing assistance for the administration of the TEM project budget, according to the decisions of the TEM Steering Committee and the provisions of the financial rules and regulations of the United Nations;
 - Advising TEM Steering Committee in the selection of consultants to render assistance in the execution of specific activities in accordance with TEM programme of work and overseeing the work of consultants;
 - Carrying out other tasks as assigned by the TEM Steering Committee and the UNECE Sustainable Transport Division Director;
 - Providing expert advice and collaborating closely with both professional staff in UNECE Sustainable Transport Division and TEM Project Central Office staff;
 - Representing the TEM Project at the meetings with external institutions, industry organizations, etc.
 - Fundraising for the TEM project
6. The Strategy Coordinator shall be responsible for implementation of the Strategy on daily basis with a support of PCO and assisting the TEM Project Manager. The Strategy Coordinator shall be appointed/selected by the Steering Committee.
- The responsibilities of the Strategy Coordinator shall involve in particular:
- Assisting TEM Project Manager in coordinating the work of project personnel in TEM Project Central Office in the framework of various activities of TEM project.
 - Assisting TEM Project Manager in preparing the draft programmes of work and budget for TEM Project for approval by TEM Steering Committee and administering it as adopted,
 - Acting as Secretary to TEM Steering Committee sessions in the absence of TEM Project Manager
 - Assisting TEM Project Manager in preparing and distributing information to the member countries on matters requiring their decision well before the meetings;
 - Assisting TEM Project Manager in maintaining continuous liaison with the National Coordinators regarding all matters concerning the implementation of TEM activities;
 - Assisting TEM Project Manager in preparing the report on the overall activities of Projects Central Offices (PCO) and developments in TEM Project during the period under review for the sessions of Inland Transport Committee (ITC), Working Party on Transport Trends and Economics (WP.5) and of Working Party on Road Transport (SC.1);
 - Supporting the implementation of the Strategic Plan, especially in the field of strategic initiatives,

- Supporting TEM Project Manager in preparation of substantial documents related to TEM Programme of work,
 - Drafting organizational documents, including in particular the draft documents on status of TEM Project in collaboration with TEM Project National Coordinators,
 - Managing and archiving documentation of TEM Project,
 - Preparing meetings of TEM Project Steering Committee with a support of TEM PCO,
 - Ensuring ongoing communication of TEM project related issues with TEM Project stakeholders,
 - Providing expert advice and collaborating closely with both international staff and TEM Central Project Office staff,
 - Advising TEM Project Manager in the selection of consultants to render assistance in the execution of specific activities in accordance with TEM Strategic Plan;
 - Overseeing the work of experts who provide consultancy services in the framework of various activities, and with the TEM Governments providing contributions in-kind to the TEM;
 - Acting on behalf of the TEM Project Manager upon his/her request or during his/her absence.
 - Carrying out other tasks as assigned by TEM Project Manager.
7. Other PCO staff should be provided by Poland and shall be responsible for running the office on daily basis and supporting TEM Project Manager and Strategy Coordinator. The responsibilities of the PCO staff shall involve in particular:
- Maintaining back office for the TEM Project,
 - Supporting in secretary and translation tasks,
 - Maintaining contact lists of TEM National Coordinators and TEM Project National Area Contributors.
8. The TEM National Area Contributors shall have a permanent new role in the organizational structure of the project to coordinate the implementation of strategic initiatives in individual Member States. In particular, their responsibilities shall involve:
- Coordinating the implementation or directly implementing the strategic initiative, if the responsibility for the implementation of the initiative has been assigned to the country and strategic area of the particular representative,
 - Providing a substantive contribution from a member country, necessary for the implementation of the strategic initiatives,
 - Coordinating cooperation with external entities involved in the implementation of the strategic initiatives,
 - Evaluating implementation results of the strategic initiatives,
 - Cooperating with the TEM Project Manager and TEM National Coordinators, in particular in relation to the implementation progress of the strategic initiatives.

4.2 Key project management rules

Project management rules adopted by TEM Steering Committee are there to establish key principles for the implementation of the TEM Project. In particular, the rules have been defined on two levels:

- Management of the entire project,
- Management of particular strategic initiatives.

The key principles of TEM Project management concern the following issues:

1. The Steering Committee shall be composed of TEM National Coordinators nominated by governments of individual Member States and supported by the Regional Advisor delegated by the UNECE. It is recommended that the country representatives in the Steering Committee are representatives of the government or the National Road Administration (NRA) of at least mid-management level.

2. The Steering Committee shall carry out its work through direct and virtual meetings using audio-visual communication. The Steering Committee shall meet in person at least once every six months.
3. The TEM National Area Contributors might be appointed by particular governments individually for each of the following strategic areas of the TEM Project:
 - Environmental protection,
 - Organization and financing of the roads and motorways system;
 - Information systems for the management of the road infrastructure,
 - Innovations,
 - Road safety.

It is recommended that the TEM National Area Contributors were representatives of the government or the NRA capable and experienced in their strategic area of operation.

4. The TEM MS shall obtain professional support for the implementation of the strategic initiatives in each of the strategic areas. Decisions/mandates in this regard will be confirmed by the Steering Committee.
5. The Steering Committee shall adopt, on the basis of TEM Project Manager proposal, the rules of procedure for strategic initiatives and reporting rules for the implementation of the strategic initiatives.

The key management principles of the strategic initiatives within the framework of the TEM Project include the following:

1. Each strategic initiative shall be assigned to a specific strategic area.
2. Responsibility for coordination and implementation of the strategic initiatives within each of the strategic areas shall rest with one of the Member States. The remaining states involved in the implementation of the initiative shall actively participate (in particular as instructed by their TEM National Area Contributor who shall participate in the implementation of the initiative), which includes providing information and the necessary substantive contribution.
3. In particular, the TEM National Area Contributor shall be responsible for the implementation of the strategic initiatives in the strategic area, if the implementation responsibility rests with a particular state.
4. In the case of assigning the strategic initiative implementation responsibility to a given state, the TEM National Area Contributor (in cooperation with the TEM National Area Contributors from other interested states) shall draw a concept note in terms of outputs, resources and activities related to the implementation, and submit it to the Steering Committee for approval.

5 Other considerations

5.1 New members considerations

One of the most important conditions for the development of the TEM Project is both activating the current participants of the Project and the expanding it to the states that are not yet involved. In particular, shifting the focus of the Project from road network coordination to creating added value for the TEM MS through the implementation of the UN sustainable development agenda for road infrastructure management should help to attract new countries.

Principles and procedures for expanding the Project to new member states are defined in TEM Trust Fund Agreement. Actions to attract new countries shall be developed by TEM Project Manager and approved by the Steering Committee.

5.2 Relations to other initiatives

The TEM Project shall maintain partnership with other initiatives and international organizations involved in the matters of transportation, including CEDR, PIARC, DG MOVE, HEEP, and ERTICO. In particular, this partnership shall be based on:

- Exchange of experiences and outcomes of the strategic initiatives with those organizations,
- Joint implementation of similar initiatives (e.g. in cooperation with TER),
- Potential involvement of the TEM National Area Contributors in implementing the initiatives in other bodies or projects of the UNECE.

In addition, the TEM Project shall still be engaged in cooperation with the HEEP, which shall mainly consist in the participation of the HEEP representatives and representatives of the TEM Project in annual working meetings.

6 Project budget

The Project budget was prepared with the following organization and implementation assumptions in mind:

1. The budget shall cover the costs related to the new organizational structure.
2. The budget shall cover the assumed remuneration for the TEM Project Manager and Strategy Coordinator.
3. Each strategic initiative shall maintain its own budget, and the budgeted amounts shall include the costs of external consulting, if applicable.

The budget is presented in the table below.

		2017	2018	2019	2020	2021	Total
Steering Committee activities		22 455 USD	112 275 USD				
PCO Costs (staff)		60 000 USD	300 000 USD				
Project Manager		30 000 USD	150 000 USD				
Strategy Coordinator		30 000 USD	150 000 USD				
TEMSTAT activities		6 000 USD	5 000 USD	5 000 USD	5 000 USD	5 000 USD	26 000 USD
Other costs (PCO, external coordination etc.)		14 000 USD	15 000 USD	15 000 USD	15 000 USD	15 000 USD	74 000 USD
Area A - Environmental protection							
A.1. - Evaluation of efficiency of the applied solutions for the protection of the environment - the methodology / measurement standards.	workshops		4 000 USD	4 000 USD			26 000 USD
	consulting		9 000 USD	9 000 USD			
A.2. - Development of standards for road equipment in the context of environmental protection.	workshops				4 000 USD	4 000 USD	26 000 USD
	consulting				9 000 USD	9 000 USD	
Area B - Organization and financing of the roads and motorways							
B.1. - Functioning and financing of the national road infrastructure management – solutions used in different states.	workshops	4 000 USD					14 000 USD
	consulting	10 000 USD					
B.2. - Evaluation of the efficiency of toll collection system - evaluation methodology.	workshops				4 000 USD		22 000 USD
	consulting			9 000 USD	9 000 USD		
B.3. - Conditions for creating an efficient PPP in the area of development and maintenance of roads.	workshops		4 000 USD	4 000 USD			26 000 USD
	consulting		9 000 USD	9 000 USD			
Area C - Information systems for the management of the road infrastructure							
C.1. - Maintenance standards of roads and highways.	workshops	4 000 USD		4 000 USD			26 000 USD
	consulting		9 000 USD	9 000 USD			
C.2. - Measurement, collection and management of data in the management of road infrastructure.	workshops				4 000 USD	4 000 USD	26 000 USD
	consulting				9 000 USD	9 000 USD	
C.3. - Development of a standard catalog of public services and model architecture of information systems in the management of road infrastructure.	workshops		4 000 USD	4 000 USD			26 000 USD
	consulting		9 000 USD	9 000 USD			
Area D - Innovations in road infrastructure management							
D.1. - Use of alternative methods of energy production in the management of road infrastructure.	workshops					4 000 USD	16 000 USD
	consulting					12 000 USD	
D.2. - BIM Approach (Building Information Modeling) in the context of the needs of the government road administration – analysis of the development of methodology and examples of implementation of the BIM approach in the government administration.	workshops				4 000 USD		22 000 USD
	consulting				18 000 USD		
Area E - Road safety							
E.1. - Evaluation of efficiency of the applied solutions for the road safety - the methodology / measurement standards.	workshops				4 000 USD	4 000 USD	26 000 USD
	consulting				9 000 USD	9 000 USD	
E.2. - Safety standards in work zones.	workshops		4 000 USD				16 000 USD
	consulting		12 000 USD				
Total		136 455 USD	150 455 USD	163 455 USD	176 455 USD	157 455 USD	

The TEM Project activities shall be financed from a different source, including:

1. The yearly contribution paid by the TEM MS, which would remain the primary source of financing. In the first two years of the Strategic Plan implementation, the level of the contribution shall remain unchanged (7.500 USD per country). The new budget shall be planned in 2019 in view of possible return the original level of yearly contribution (10.000 USD per country). This shall be preceded by the analysis of the Strategic Plan implementation, the level of financial resources accumulated on the TEM Project account, and the progress in the implementation of the strategic initiatives.
2. The financial resources accumulated on the TEM Project account come from the contributions paid by the TEM MS in the previous years.
3. The open, paid seminars or workshops for the representatives of states not yet participating in the TEM Project, and other institutions involved in road infrastructure management.
4. Fundraising

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7 TEM Project strategic initiatives

Cooperation of countries within the TEM Project can be related to a very wide range of substantive issues concerning planning, design, construction and maintenance of road network. The challenges for the TEM Project in the context of the preparation of the Strategic Plan were to:

- Identify initiatives, which, from the government perspective, are systemic in nature, essential for its operation, and key to resolving the challenges common for all TEM MS,
- Indicate implementation of tasks common to all TEM MS, making it possible to address them within the scope of TEM Project,
- Prioritise individual issues indicated for implementation in the context of schedule for the years 2017-2021,
- Indicate expected outcomes of individual tasks.

The strategic initiatives in place focus on the challenges that are currently or will be in the near future essential for TEMMS. The scope of these initiatives was presented only as a general overview. Detailed outputs, resources, activities and implementation methods shall be proposed by TEM MS responsible for implementing the initiative, and adopted by the Steering Committee.

The challenges identified in the Strategic Plan were classified into the following strategic areas:

- Area A – Environmental protection,
- Area B – Organization and financing of the roads and motorways,
- Area C – Information systems for the management of the road infrastructure,
- Area D – Innovations in road infrastructure management,
- Area E – Road safety.

The rest of the Strategic Plan describes individual initiatives that will be covered by the TEM Project in the years 2017-2021. For each of the tasks carried out within the area, the Plan presents its scope, potential method of implementation, and expected results of the initiative. Implementation schedule for specific areas is presented in the next section.

7.1 Area A – Environmental protection

No.	Task description	Scope of the task	Realization method	Result
A.1.	Evaluation of efficiency of the applied solutions for the protection of the environment - the methodology / measurement standards	<p>The task shall consist in developing methodologies and standards for measuring the efficiency of sustainability solutions. In particular, the scope of the task shall be to determine the following:</p> <ul style="list-style-type: none"> – The extent of measuring the impact of road infrastructure on the environment (e.g. noise level, changes in groundwater), – Quantitative or qualitative characteristics to measure in the context of the efficiency of sustainability solutions, – Effectiveness measures used to assess the efficiency of sustainability – Frequency of measurements (when, how often, at what stages of the life cycle of the road), – How to interpret and use the outcomes of measuring the efficiency of sustainability solutions. <p>The outcome of this task shall be presented to the Inland Transport Committee in form of a report and approved as the official UNECE guidelines in this area.</p>	<ul style="list-style-type: none"> – Preparation of the report "The methodology and standards for measuring the efficiency of sustainability solutions". – Report prepared in collaboration with an external consultant. 	<ul style="list-style-type: none"> – Report "The methodology and standards for measuring the efficiency of sustainability solutions" available on the TEM website.
<p>Related SDGs: Goal 3. Ensure healthy lives and promote well-being for all at all ages. Goal 9. Build resilient infrastructure, promote inclusive and sustainable industrialization and foster innovation. Goal 15. Protect, restore and promote sustainable use of terrestrial ecosystems, sustainably manage forests, combat desertification, and halt and reverse land degradation and halt biodiversity loss.</p>				

No.	Task description	Scope of the task	Realization method	Result
A.2.	Development of standards for road infrastructure in the context of environmental protection.	<p>The task shall consist in developing an overview of the legal and technical solutions applied by individual states in the context of environmental protection and the development of standards recommended in this regard. In particular, the task shall provide answer to the following questions:</p> <ul style="list-style-type: none"> – What elements of road infrastructure are used in different countries in terms of environmental protection? – Do the solutions used in different countries differ from each other depending on the type of road? – How is the requirement control ensured for road infrastructure in the context of environment protection? <p>The task shall lead to developing road infrastructure standards for environmental protection, which will eventually be presented to the Inland Transport Committee and approved as the official UNECE guidelines in this area.</p>	<ul style="list-style-type: none"> – Workshop session to present and discuss solutions used in different countries. – Report prepared in collaboration with an external consultant. 	<ul style="list-style-type: none"> – Presentations of solutions from individual states published on the TEM website. – Report "The standards of road infrastructure in the context of environmental protection." available on the TEM website.
<p>Related SDGs:</p> <p>Goal 3. Ensure healthy lives and promote well-being for all at all ages.</p> <p>Goal 9. Build resilient infrastructure, promote inclusive and sustainable industrialization and foster innovation,</p> <p>Goal 15. Protect, restore and promote sustainable use of terrestrial ecosystems, sustainably manage forests, combat desertification, and halt and reverse land degradation and halt biodiversity loss.</p>				

7.2 Area B – Organization and financing of the roads and motorways

No.	Task description	Scope of the task	Realization method	Result
B.1.	Functioning and financing of the national road infrastructure management – solutions used in different states.	<p>The task shall consist in developing a review of the legal and organizational solutions comprising the models of governance and financing of public roads applied in individual states. In particular, the task shall cover the following:</p> <ul style="list-style-type: none"> – Review of solutions and public revenue financing models applied in different member states to uphold the road infrastructure, – Review of practices and organizational solutions in the context of NRA in individual countries, with emphasis on: <ol style="list-style-type: none"> a) Organizational and legal forms, including special purpose vehicles for NRA, b) Distribution of responsibilities on the ministerial and administrative levels, c) Financing methods of NRA activities. – Review of practices and organizational solutions applied in individual countries for the collection and settlement of toll charges for the use of the road network. 	<ul style="list-style-type: none"> – Workshop session to present and discuss solutions used in different countries. – Report prepared in collaboration with an external consultant. 	<ul style="list-style-type: none"> – Presentations of solutions from individual states published on the TEM website. – Report "The functioning and financing of national road infrastructure management systems – models, and organizational and financial solutions" available on the TEM website.
<p>Related SDGs: Goal 10. Reduce inequality within and among countries, Goal 12. Ensure sustainable consumption and production patterns.</p>				

No.	Task description	Scope of the task	Realization method	Result
B.2.	Evaluation of the efficiency of toll collection system – evaluation methodology.	<p>The task shall consist in developing the methodology and guidelines for measuring the effectiveness of the toll collection system. The methodology shall take into account in particular:</p> <ul style="list-style-type: none"> – Types of toll systems used in individual states, – The toll system efficiency measuring method depending on the model, and taking into account both financial and quality issues, such as risk control systems, implementation difficulty, technology development etc., – Comparison of toll systems in terms of efficiency. <p>The results of the task shall be presented to the Inland Transport Committee in form of a report and approved as the official UNECE guidelines in this area.</p>	<ul style="list-style-type: none"> – Preparation of the report "The methodology for measuring the efficiency of the toll collection system". – Report prepared in collaboration with an external consultant. 	<ul style="list-style-type: none"> – Report "The methodology for measuring the efficiency of the toll collection system" available on the TEM website.
<p>Related SDGs: Goal 10. Reduce inequality within and among countries, Goal 12. Ensure sustainable consumption and production patterns.</p>				

No.	Task description	Scope of the Task	Realization method	Result
B.3.	Conditions for creating an efficient PPP in the area of construction and maintenance of roads.	<p>The task shall consist in developing a review of organizational, financial and legal matters related to the functioning of the PPP in the area of development and maintenance of roads. In particular, the scope of the task shall apply to the preparation of a report presenting:</p> <ul style="list-style-type: none"> – Advantages and disadvantages of PPPs from a perspective of a public partner, – Risks of PPP in the context of a public partner and the methods of protection of public interest in PPP projects, – Conditions necessary to ensure the efficiency of PPP projects from the perspective of a public partner, – Examples of efficient PPPs in the development and maintenance of roads and motorways. 	<ul style="list-style-type: none"> – The task can be carried out in cooperation with a financial advisor and legal counsel. – The task shall be realized in the form of a special workshop for the MS. 	<ul style="list-style-type: none"> – Workshop materials published on the TEM website. – Report "Best practices for government administration in the field of PPP in the development and maintenance of roads" available on the TEM website.
<p>Related SDGs: Goal 10. Reduce inequality within and among countries, Goal 12. Ensure sustainable consumption and production patterns.</p>				

7.3 Area C – Information systems for the management of the road infrastructure

No.	Task description	Scope of the Task	Realization method	Result
C.1.	Maintenance standards of roads and highways.	<p>The task shall consist in developing standards for the maintenance of roads and motorways, which will be eventually presented to the Inland Transport Committee and approved as the official UNCEC guidelines in this regard. The scope of the task shall provide answers to the following questions:</p> <ul style="list-style-type: none"> – Is it possible to develop standards for the maintenance of roads and motorways? – Should the standards be different depending on the type of the road (e.g. different for expressway and different for motorway)? 	<ul style="list-style-type: none"> – Workshop session to present and discuss solutions used in different states. – Guidelines for standards of maintenance of roads and motorways. – The task can be carried out in cooperation with an external consultant. 	<ul style="list-style-type: none"> – Presentations of solutions individual states available on the TEM website. – Report "Standards for the maintenance of roads and motorways" published on the TEM website.
<p>Related SDGs: Goal 3. Ensure healthy lives and promote well-being for all at all ages. Goal 10. Reduce inequality within and among countries. Goal 12. Ensure sustainable consumption and production patterns. Goal 15. Protect, restore and promote sustainable use of terrestrial ecosystems, sustainably manage forests, combat desertification, and halt and reverse land degradation and halt biodiversity loss.</p>				

No.	Task description	Scope of the Task	Realization method	Result
C.2.	Measurement, collection and management of data in the management of road infrastructure.	<p>The task shall consist in analysing and developing guidelines on the measurement and processing of data necessary for management of road infrastructure, including in particular:</p> <ul style="list-style-type: none"> – Data necessary for wealth management, – Data necessary to evaluate the impact of the network of roads and motorways on the environment, – Methods of processing the above mentioned data within the business intelligence systems. <p>The task shall conclude a report which shall be presented by TEM and recommended to the Inland Transport Committee as the official UNECE guidelines in this area.</p>	<ul style="list-style-type: none"> – Preparation of the report "Recommendations for the management of data in terms of road infrastructure management." – Report prepared in collaboration with an external consultant. 	<ul style="list-style-type: none"> – Material for illustration report "Recommendations for the management of data in terms of management of road infrastructure" available on the TEM website.
<p>Related SDGs: Goal 9. Build resilient infrastructure, promote inclusive and sustainable industrialization and foster innovation. Goal 10. Reduce inequality within and among countries. Goal 12. Ensure sustainable consumption and production patterns.</p>				

No.	Task description	Scope of the Task	Realization method	Result
C.3.	Development of a standard catalogue of public services and model architecture of information systems in the management of road infrastructure.	<p>The task shall consist in analysing and developing model architecture systems used in the management of road infrastructure. In particular, the task shall cover the following:</p> <ul style="list-style-type: none"> – Analysis of the catalogue of IT services provided by the member states, – Analysis of the current business architecture of operating systems in the member states, – Preparation of a standard catalogue of services provided by the ITS systems supporting the management of road infrastructure, – Development of a standard business architecture for IT systems to support the management of road infrastructure. 	<ul style="list-style-type: none"> – Workshop session to present and discuss solutions used in different states. – Internship in the scope of the catalogue of services and business architecture of IT systems. – The task can be carried out in cooperation with an external consultant. 	<ul style="list-style-type: none"> – Report "Catalogue of public services and model architecture of IT systems in the management of road infrastructure – overview of practices and recommendations" available on the TEM website.
<p>Related SDGs: Goal 9. Build resilient infrastructure, promote inclusive and sustainable industrialization and foster innovation. Goal 10. Reduce inequality within and among countries. Goal 12. Ensure sustainable consumption and production patterns.</p>				

7.4 Area D – Innovations in road infrastructure management

No.	Task description	Scope of the Task	Realization method	Result
D.1.	Use of alternative methods of energy production in the management of road infrastructure	The task shall consist in the exchange of knowledge and member states becoming familiar with alternative energy sources that can be used with the planned or existing road infrastructure.	<ul style="list-style-type: none"> – Workshop session to present and discuss solutions used in different states. – Workshop session can be carried out in cooperation with representatives of non-governmental organizations, research and external advisors, specializing in alternative energy sources. 	<ul style="list-style-type: none"> – Presentations of solutions from individual states available on the TEM website. – Report "Alternative energy sources in the management of road infrastructure"
<p>Related SDGs: Goal 7. Ensure access to affordable, reliable, sustainable and modern energy for all. Goal 9. Build resilient infrastructure, promote inclusive and sustainable industrialization and foster innovation. Goal 10. Reduce inequality within and among countries. Goal 12. Ensure sustainable consumption and production patterns.</p>				

No.	Task description	Scope of the Task	Realization method	Result
D.2.	BIM Approach (Building Information Modelling) in the context of the needs of the government road administration – analysis of the development of methodology and examples of implementation of the BIM approach in the government administration	The task shall consist in TEM MS becoming familiar with the progress in the development of methods and tools for the BIM and the application of this method in road administration of the selected states.	<ul style="list-style-type: none"> – Workshop session to present and discuss development of methods and tools related to the BIM with case studies from the selected states. – Workshop session can be carried out in cooperation with representatives of non-governmental organizations, research and external advisors, specializing in BIM. 	– Report "The use of BIM in the management of road infrastructure", published on the TEM website.
<p>Related SDGs: Goal 9. Build resilient infrastructure, promote inclusive and sustainable industrialization and foster innovation. Goal 10. Reduce inequality within and among countries. Goal 12. Ensure sustainable consumption and production patterns.</p>				

7.5 Area E – Road safety

No.	Task description	Scope of the task	Realization method	Result
E.1.	Evaluation of efficiency of the applied solutions for the road safety - the methodology / measurement standards.	<p>The task shall consist in developing methodologies and standards for measuring the efficiency of road safety solutions. In particular, the task shall focus on the following:</p> <ul style="list-style-type: none"> – The extent of measuring the impact of road infrastructure on the environment, – Quantitative or qualitative characteristics to measure in the context of the efficiency of road safety solutions, – Effectiveness measures used to assess the effectiveness of the road safety solutions, – Frequency of measurements (when, how often, at what stages of the life cycle of the road), – How to interpret and use the outcomes of measuring the efficiency of road safety solutions. <p>The outcome of this task shall be presented to the Inland Transport Committee in form of a report and approved as the official UNECE guidelines in this area.</p>	<ul style="list-style-type: none"> – Preparation of the report "The methodology and standards for measuring the effectiveness of road safety solutions." – Report prepared in collaboration with an external consultant. 	<ul style="list-style-type: none"> – Report "The methodology and standards for measuring the effectiveness of road safety solutions", available on the TEM website.
<p>Related SDGs: Goal 3. Ensure healthy lives and promote well-being for all at all ages. Goal 9. Build resilient infrastructure, promote inclusive and sustainable industrialization and foster innovation.</p>				

No.	Task description	Scope of the task	Realization method	Result
E.2.	Safety standards in work zones.	<p>The task shall consist in developing an overview of the legal and technical solutions applied by individual states in the context of work zones, and creating standards recommended in this regard. In particular, the task shall provide answers to the following questions:</p> <ul style="list-style-type: none"> – What elements of the traffic management system and road infrastructure are used/required in different states in terms of work zones safety? – Do the solutions used in different states differ from each other? – What are the legal or operational tools used to ensure compliance with the requirements in the context of work zones safety standards? <p>The task shall lead to the development of safety standards for work zones, which will eventually be presented to the Inland Transport Committee and approved as the official UNECE guidelines in this regard.</p>	<ul style="list-style-type: none"> – Workshop sessions to present and discuss solutions used in different states. – Report prepared in collaboration with an external consultant. 	<ul style="list-style-type: none"> – Presentations of solutions used in individual countries published on the TEM website. – "The standards of road work zones" report published on the TEM website.
<p>Related SDGs: Goal 3. Ensure healthy lives and promote well-being for all at all ages. Goal 9. Build resilient infrastructure, promote inclusive and sustainable industrialization and foster innovation.</p>				

8 The strategy implementation timetable

The implementation timeframe for the Strategic Plan has been prepared based on the assumption that the implementation of strategic initiatives will begin in 2017. The new Trust Fund Agreement Attachment 1, 2017-2021 and organizational measures shall be ready by the end of 2016:

- Arrangements for the composition of the new bodies of the Project,
- Arrangements for the detailed implementation method of the initiatives planned for 2017,
- Discussions around the principles and mode of action related to the accession of new countries.

		2016	2017	2018	2019	2020	2021
STRATEGIC INITIATIVES	Organizational and consulting activities in connection with the implementation of the Strategy 2016-2021						
	Area A - Environment and protection thereof						
	A.1. - Evaluation of efficiency of the applied solutions for the protection of the environment - the methodology / measurement standards.						
	A.2. - Development of standards for road equipment in the context of environmental protection.						
	Area B - Organization and financing of the roads and motorways system						
	B.1. - Functioning and financing of the national management of road infrastructure -solutions used in different countries.						
	B.2. - Evaluation of the efficiency of toll collection system - evaluation methodology.						
	B.3. - Conditions for creating an efficient PPP in the area of development and maintenance of roads.						
	Area C - Information systems for the management of the road infrastructure						
	C.1. - Maintenance standards of roads and highways.						
	C.2. - Measurement, collection and management of data in the management of road infrastructure.						
	C.3. - Development of a standard catalog of public services and model architecture of information systems in the management of road infrastructure.						
	Area D - Innovations in road infrastructure management						
	D.1. - Use of alternative methods of energy production in the management of road infrastructure.						
	D.2. - BIM Approach (Building Information Modeling) in the context of the needs of the government road administration – analysis of the development of methodology and examples of implementation of the BIM approach in the government administration.						
	Area E - Road safety						
	E.1. - Evaluation of efficiency of the applied solutions for the road safety - the methodology / measurement standards.						
	E.2. - Safety standards in work zones.						

9 Appendix – Current TEM Project Member States

- Armenia,
 - Austria (associate member),
 - Bosnia and Herzegovina,
 - Bulgaria,
 - Croatia,
 - Czech Republic,
 - Georgia (membership frozen),
 - Greece (membership frozen),
 - Italy (membership frozen),
 - Lithuania,
 - Poland,
 - Romania,
 - Slovakia (membership frozen),
 - Slovenia,
 - Turkey.
-
- 4 other countries have an observer status: Montenegro, Serbia, Sweden and Ukraine.
 - Azerbaijani membership is pending, awaiting signature for accession.

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