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for Armenia, Azerbaijan, Georgia, Kazakhstan, Kyrgyzstan, Moldova, Tajikistan, Turkmenistan, Ukraine, Uzbekistan

EUROPEAID/133698/C/SER/MULTI

Implementation of the Regional Road Safety Action Plan for the Neighbourhood East and Central Asian Countries – Service Contract

FINAL Report

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ABBREVIATIONS AND ACRONYMS

ARM	Armenia
AZE	Azerbaijan
BSM	Black Spot Management
CA	Contracting Authority (EC DG ELARG)
CADAS	Common Accident Data Set
CDB	Crash Data Base
Consultant	Safege-IMC-Gtant Thorton-Granturco&Partners
DG NEAR	Directorate General for Neighbourhood and Enlargement Negotiations
EBRD	European Bank of Reconstruction and Development
EC	European Commission
EU	European Union
GEO	Georgia
GIS	Geographical Information System
IFI	International Financing Institution
IR	Inception Report
IT	Information Technology
KAZ	Kazakhstan
KE	Key Expert
KGZ	Kyrgyzstan
LTE/STE	Long Term Expert/Short Term Expert
MDA	Moldova
MoT/C	Ministry of Transport/and Communications
NGO	Non-Governmental Organisation
NPC	National Project Coordinator(s)
PM	Project Manager
PR	Progress Report
RRSAP	Regional Road Safety Action Plan
RRSS	Regional Road Safety Strategy
RS	Road Safety
RSA	Road Safety Audit
RSI	Road Safety Inspection
SPR	Specific Project Result
STE	Sort Term Expert
TA	Technical Assistance
TAJ	Tajikistan
TL	Team Leader
TRACECA	Transport Corridor Europe Caucasus Asia
TUR	Turkmenistan
UKR	Ukraine
UZB	Uzbekistan
WB	World Bank
WS	Workshop

PROJECT SYNOPSIS AND EXECUTIVE SUMMARY

1 This project is a follow up to an earlier EU funded regional road safety project that covered 9 countries in TRACECA region, which identified the areas of need in terms of road safety in each country and developed a generic regional road safety action plan[1] for the concerned countries, to use as a model for developing their own country specific Action Plans. This regional road safety action plan was accepted and endorsed by all the beneficiary countries in 2012. However, despite several years having passed since this endorsement, none of the countries were able to develop their own country specific Action Plans as had been intended. Furthermore, Turkmenistan, was not included in that original assessment or the regional action plan so needed to be brought in. That regional action plan identified actions to be implemented in six sectors: Regulatory and Institutional Reforms, Safer Roads, Safer Vehicles, Safer Road Users / Behaviour, Emergency Medical Services and Changing Attitudes.

2 The EU, in order to assist the TRACECA beneficiary countries, initiated further technical assistance to help the countries of the region in developing their individual country specific action plans and in implementing the necessary improvements that had been identified in the Regional Action Plan. This technical assistance was split so that sectors 1-3 were allocated to a Consortium led by SAFEGE and sectors 4-6 were allocated to a consortium led by GRSP. These two Technical Assistance projects were to run in parallel and were both to be completed over a 2-year period.

3 Since road safety, because of the need for interaction between the sectors, has to be implemented via a holistic approach, the SAFEGE led consortium as part of Sector 1 Regulatory and Institutional reforms, also looked at the overall structure, management, coordination and funding of road safety across all sectors. It also looked more specifically at the actions needed to “institutionalise” road safety in each country and to build institutional capacity in vehicle and road safety engineering. This Final Report outlines only the activities and findings of the Consortium led by Safege/Suez.

4 Although not a requirement of the Terms of Reference, the SAFEGE project, after presenting the Inception Report initiated a benchmarking exercise to identify the current progress in implementing the Regional Action Plan and the improvements recommended in it for each sector of road safety. This identified the strengths and weaknesses of individual countries and the region as a whole at commencement of the project, to enable project team efforts to be targeted at the areas of greatest need in each country. It also enabled systematic assessment at project end of institutional impact in each of the areas addressed by the Consortium. Stakeholder agencies in each country were asked to give their assessments of progress so that the overall project impacts could be estimated. This showed there had been significant progress and impact in each sector (see section 4.1).

5 The project team adopted a 4 phase strategy in implementing the project:

1 Benchmarking - to understand current problems and needs of each country
2 Capacity building - to develop the relevant personnel and organisations in key areas
3 Stimulation /Motivation of decision makers and political leaders - to take the required actions
4 Institutionalisation of road safety activities - to enhance chances of sustainability

6 Once the benchmarking phase was completed and the needs within each sector were better known and understood, a series of workshops and practical training activities were initiated to strengthen capacity of key stakeholders in the areas of greatest need. These included regional, sub regional and country specific

[1] TRACECA regional road safety action plan, SAFEGE Consultants, Brussels, 2012

workshops and ranged from action plan development workshops to training on road safety engineering, vehicle safety standards, crash data systems and UN conventions related to road safety. Over 450 persons from 9 countries[2] were introduced to international best practices in safety action plans and assisted in developing country specific road safety action plans. A further 70 persons were trained in safety engineering from which 20 were selected for additional intensive training as road safety auditors and trainers. This training was supported by road safety guidelines and manuals to give a written source of reference. Follow up in country sector specific workshops and round table meetings introduced over 200 additional local specialists to international best practices in their respective sectors of activity. Hence in total over 700 persons from road & transport, and health institutions of beneficiary countries participated in workshops and training and were introduced to international best practices in their respective sectors of interest. This included safety legislation, management and coordination structures, funding mechanisms, UN conventions, crash data systems, technical inspections and safety teaching / research.

7 In order to ensure ownership and encouragement to senior officials, the project organised a Study Tour for Deputy Directors / 2nd highest officials from the 3 most important organisations responsible for road safety in each country (Traffic Police, Ministry of Transport and Roads Administration) to show them how other similar countries have improved road safety. Normally such study tours are organised to take senior officials to the countries with the best road safety (e.g. Sweden, UK, Netherlands etc.). Although this can be very useful in giving participants an overview of what can be achieved in a country, this can sometimes also be counterproductive and study tour participants can sometimes go away disheartened at the huge gap between their own country and the study tour host country in terms of road safety, systems and funding. They often return to their own countries disheartened and feeling that it would be impossible to reach such high levels of safety in their own countries. It was therefore necessary for motivation and aspirational purposes, to identify a role model country which was similar to them and had once had similar constraints but which despite that, had been very successful in road safety and to which they could relate to better as a possible aspirational yet attainable role model.

8 Serbia was selected as the "role model" as it once had similar ex-Soviet systems, practices and constraints to those still now existing in TRACECA countries. Serbia, like the TRACECA countries, is not a EU member country but despite this, achieved impressive reductions in road deaths over the last 14 years reducing deaths from 1275 per year to 550 per year – a 57% reduction over the period. It was done voluntarily adopting and where appropriate, adapting best practices from Europe and applying them in their country and as a result, they have achieved similar reductions to those achieved in the EU countries. This offered more motivation and encouragement to Study Tour participants and in addition, they were able to talk directly to and to discuss with the actual government organisations and individuals who introduced the various reforms implemented in Serbia to explore the problems and difficulties in introducing such reforms. Follow up visits and discussions in country confirmed that study Tour participants all returned to their countries motivated and determined to do more and with a feeling that if Serbia could do it, there was no reason why their countries could not also improve road safety.

9 Most of the TRACECA project beneficiary countries are still at an early stage of road safety development and need practical assistance /guidance to develop their road safety activities – especially in management, coordination and funding of road safety. For road safety to germinate, prosper and grow we needed to systematically build road safety into the normal activities and practices in selected organizations that can influence road safety in a country. We also needed to develop, train and motivate key individuals who can then go on to train and motivate other professionals beyond the project period. These 'institutionalizing' activities were implemented by deploying a number of teams (each typically with 1-3

[2] Although Turkmenistan was originally to be included as a beneficiary country, they opted not to participate in any of the workshops and training offered by the project. The project team, with agreement / approval of EU, eventually continued to invite their participation but planned no further visits to the country.

experts from the project) to make 2-day visits to each country with each team focussing on their particular specialist topics or aspects. They worked with small groups of 12-15 relevant local experts from that country beneficiary institutions; in round table discussions, site visits and practical training sessions. Team members were drawn from our pool of practitioners with extensive practical implementation experience in their areas of expertise. The pool included the leading international experts in some areas and many of the same individuals who were the architects and implementers of the major reforms that were done in Serbia to convert a country with typical systems inherited from former Soviet Union institutions which were unable to adapt to present transport sector situation and needs into those applying modern EU safe systems approaches to road safety. They shared their practical implementation experience with the relevant TRACECA countries.

10 The beneficiary stakeholders in each country also gave their own assessments of progress and impact achieved by the project in moving road safety forward in their countries. Their independent end of project evaluations also confirmed that the SAFEGE project has delivered significant progress in the areas addressed by the project and that there has been real and demonstrable impact on the capability and institutional capacity of each country and its key officials to address road safety problems in those areas.

11 Extensive communications activity was undertaken throughout the project to keep all stakeholders and the Donors and lenders in each country fully informed of all initiatives, activities and training given, and were given contact details of key contacts in each country. This maximised synergy of efforts by all parties and ensured that they can, in their future donor and lending programmes, build upon the work already done in these areas; so that their consultants can avoid repeating and duplicating what has already been done during this project. Also, the EU visibility measures were implemented during all events / on all project materials.

1 INTRODUCTION

1.1 Project Objective, Purpose and Expected Results

The Project Objective was the implementation of the TRACECA Regional Road Safety Action Plan, ensuring that the corridor transport system actively promotes the safety, security and protection of users, property, general public and the environment that might be involved in or affected by this system.

The purposes of Project were to support the beneficiary countries in developing and implementing technical programmed activities to improve and guarantee, on a continuous basis, road and vehicle safety in accordance with international standards.

The Project Expected results were to be delivered through 4 components:

Component 1: Inclusion of Turkmenistan in the TRACECA- Regional Road Safety Action Plan

Component 2: Regulatory and institutional reforms

Component 3: Safer infrastructure and vehicles

Component 4: Communication and visibility

Extract from the ToR[3] provides more details of the activities that were to be undertaken.

1.2 Scope of the Project

1.1.1 Project description

This project objective was to provide technical assistance to the beneficiary countries for implementing the necessary measures to upgrade national legislation, regulations, procedures and organisations with the aim of reaching international standards regarding road safety. The project was to base its work on the needs analysis performed by the previous EU-funded road safety project which resulted in a regional action plan with prioritized measures to be undertaken at national level for each beneficiary country, and where relevant, a common approach on regional level was to be promoted. Since the earlier project did not include Turkmenistan, efforts were to be made to bring that country into the project.

The project geographical area covers Armenia, Azerbaijan, Georgia, Moldova, Ukraine, Kazakhstan, Kyrgyzstan, Tajikistan, Turkmenistan and Uzbekistan. The main target groups were to be the key stakeholder ministries with interests in, responsibilities for or ability to influence road safety in each country.

1.1.2 Specific work and activities

The main activities initially envisaged for each component can be summarised as follows:

Component 1: Inclusion of Turkmenistan in the TRACECA- Regional Road Safety Action Plan. The primary purpose of this was to bring Turkmenistan to the same stage of preparedness for a country specific action plan as the other 9 countries who had benefited from the earlier EU project.

Component 2: Regulatory and institutional reforms. This was initially intended to support the beneficiary countries in making progress toward implementation of the 7 UN Conventions and EU Agreements related to road safety so that a harmonised approach could be developed for transport transiting these countries. Once the initial benchmarking was undertaken it became clear that a much more urgent and important need for all countries was to develop the overall management coordination and funding of road safety as that overall structure was needed, in order to be able to make any such regulatory or institutional reforms. The regulatory and institutional reforms were therefore addressed under the wider heading of management.

Component 3: Safer infrastructure and vehicles. This was targeted to strengthen safety engineering activities, to ensure that roads were being designed, constructed and operated safely and that local engineers had the skills, knowledge and guidance to be able to implement better safety engineering. It

[3] For more information, please follow the link.

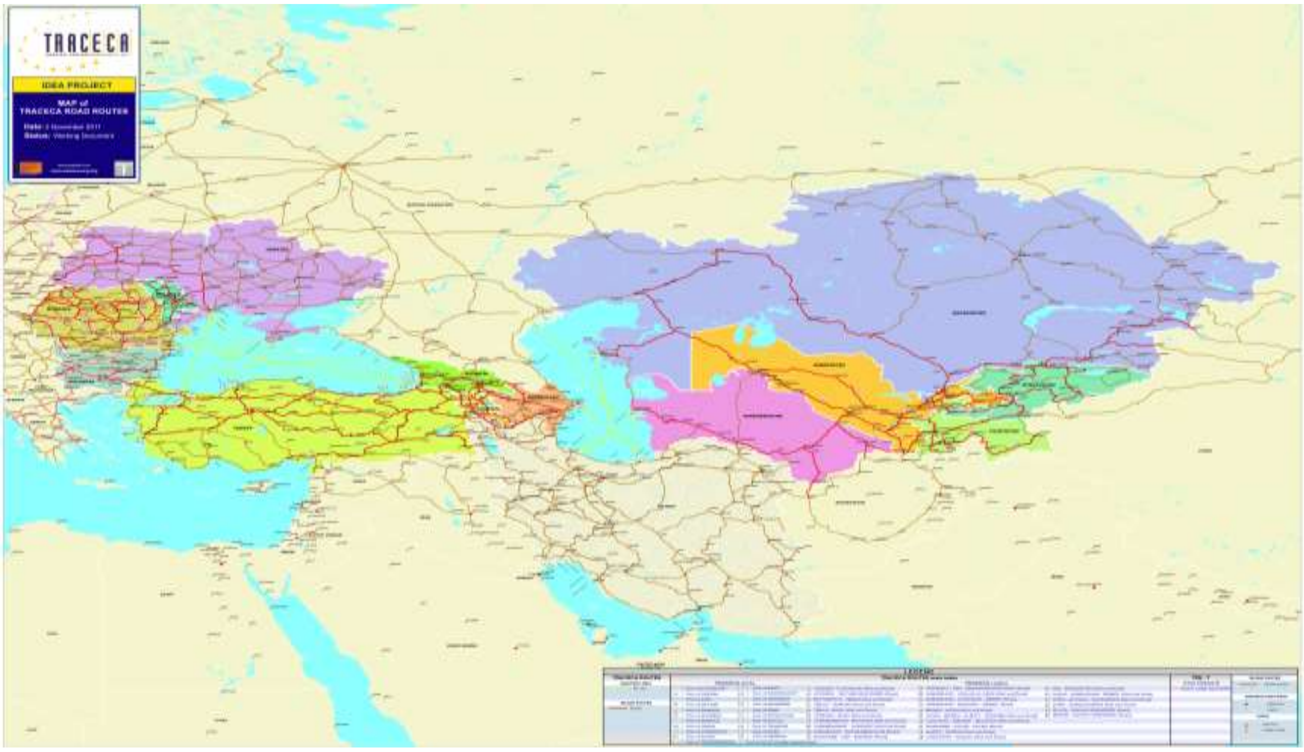
included also a review of vehicles safety standards /technical inspections and guidance on safe parking and routing of heavy goods vehicles.

Component 4: Communication and visibility. This was intended to ensure that EU and local EU Delegations receive adequate visibility in the concerned countries and opportunities to promote EU in local media for the support they were providing to the countries through this project. The second target was to keep all relevant stakeholders, development banks, donors and EU Delegations in each country fully informed about project findings and initiatives to get their support, to avoid overlaps and to maximise synergy.

2 PROJECT ACTIVITIES AND OUTPUTS AND OUTCOMES

2.1 Understanding the characteristics and scale of the problem

The portion of TRACECA region covered by this EU funded regional project extends from the borders of EU to the borders of China as shown below and includes 10 beneficiary countries (Armenia, Azerbaijan, Georgia, Kazakhstan, Kyrgyzstan, Moldova, Tajikistan, Turkmenistan[4],Ukraine and Uzbekistan). These countries over the next 30-50 years, are likely to experience huge increases in traffic as a result of the expected increasing trade links between these 2 major economic powers. Even with the current relatively low traffic levels, by 2013 there were already around 19,000 road deaths and nearly 200,000 persons injured every year on the roads of these countries. The average risk of death in a road crash (at 15.3 deaths / 100,000 population) is about 2 to 3 times as high as the average of EU countries (6 deaths / 100,000 population). This is now costing the region around US $17 billion annually (4% of the region's GDP) and the economic losses from road accidents are about 5 times as high as the total official development aid being provided annually to that region). Road accidents are undoubtedly inhibiting the social and economic development of the region



[4] Subsequent to start of the project, Turkmenistan opted not to participate in project activities and with EU approval, the activities proposed for Turkmenistan were cancelled. The 9 other countries participated fully in the project.

Unfortunately, the situation is likely to deteriorate further in future years with the expected significant increases in traffic that will occur unless effective action is taken to address the underlying issues that are generating these unsafe conditions on the road networks of the region. There are serious inadequacies in safety aspects of the road infrastructure especially for vulnerable road users because of the present widespread use of ex-Soviet Union SNIP and GOST standards and checking procedures dating from those times, focusing more on simplistic compliance with the (often outdated) design standards rather than whether the proposed designs are safe for all road users. Knowledge/ expertise in and application of Road safety audits and safe systems approaches is very limited in the region and unsafe roads continue to be built. Even when safety audits are insisted upon by development banks, the resulting recommendations are not always implemented fully by the roads authorities because of reluctance to incur costs or delays in the roads programme. There is a need to strengthen capacity and better understanding the importance to road safety activities of both the roads related organisations and the local experts.

UN conventions and EU agreements related to road safety are at various stages of adoption so there is no consistency across the countries of the region for dealing with International through traffic (e.g. rest periods and secure parking facilities for drivers, transport of dangerous goods etc.) and in some countries (e.g. Kazakhstan) up to 30 % of the accidents are attributable to tiredness / fatigue of drivers on long routes. Vehicle technical inspections need improvement and in 3 countries such road worthiness inspections have been discontinued, so unsafe vehicles are permitted to use public roads in those countries. However, the biggest problem in all countries is the lack of effective management, coordination and funding of road safety and despite many countries having coordination bodies in theory, few such bodies have any resources in practice, so there is no one managing, coordinating and ensuring road safety activities happen. Traffic police in most countries still tend to consider crash data as “secret” and are often reluctant to share data with other stakeholders. As a consequence, such stakeholders can do little to improve road safety in their areas of potential influence and road safety continues to be a problem in each country.

The systems and approaches now commonly used in EU countries and which have resulted in 40-60% reductions in road deaths in such countries over the last 10 years are not being applied in the region so considerable scope exists for improvement if such approaches and techniques can be introduced into the region. This EU funded project was intended to introduce to these countries international best practices in road safety and, where possible, to assist them in applying such techniques and developing their institutions and local experts to be able to apply such approaches for the improvement of road safety.

One of the problems of the region is that crash data is not easily accessible and international comparisons between countries can be difficult because of differing definitions of death in police statistics (i.e. in 1 day, in 7 days, in 30 days etc.) and differing rates of under reporting of casualties in different countries. In order to do international comparisons data has to be adjusted for such factors and the police reported deaths for each country for 2014 has been adjusted in table 1 by using WHO[5] correction factors as used in their recent Global status reports.

[5] Correction factors used are as were applied in the Global status of road safety report, WHO, Geneva 2015. in the case of Ukraine which was not included in the 2015 WHO report, correction factor used was as used in the equivalent WHO Global status report of 2013.

Table 1: Police reported road deaths and injuries in Project Beneficiary countries in 2014 and after application of adjustment for definitions and under reporting for international comparison

No.	Country	Police reported injuries	Police reported deaths	WHO Corrected 30 day deaths	Deaths / 100,000 population after data correction	Comments and WHO correction factors
1	Armenia	4,479	297	513	17.23	1.7278
2	Azerbaijan[a]	2,676	1,124	1461[d]	15.52	1.30[d]
3	Georgia	8,536	511	511	11.77	1.00
4	Kazakhstan	25,942	2,585	3184	19.36	1.2319
5	Kyrgyzstan[b]	N/A	1184	1220	21.99	2013 data 1.0304
6	Moldova	3,080	324	469	13.44	1.4470
7	Tajikistan[a]	1,746	446	1354	16.49	3.0374
8	Turkmenistan	n/a	883	914	17.44	2013 data 1.1242
9	Ukraine	32,352	4,464	4464	10.08.	1.0008
10	Uzbekistan[c]	N/A	2298	3240	11.19	2013data 1.4099

Note: 30 day deaths unless indicated otherwise a = 7 days, b = 1 year, c = unlimited time d= the calculation in who global status report 2015 for converting Azerbaijan 7 day deaths to 30 day deaths is an error and corrected figure should be 1461 as shown .

Table 1 above gives an overview of the current (2014) position in each of the beneficiary countries for international comparisons and it can be seen that the risk of death in terms of deaths / 100,000 population in the region ranges from 2 to 3 times the average rates in EU countries (6 deaths / 100000 population) and 3 -7 times the rates in the very best countries Sweden, UK and Netherlands (under 3 deaths / 100000 population. The application of EU approaches via this EU funded regional project will hopefully assist these countries to improve their capacity to address their road safety problems more effectively.

The actual activities undertaken and outputs/outcomes achieved are presented in this chapter. In each case, the Activity is briefly described along with its' main outputs/outcomes with reference given to attached deliverables (documents). This way of presenting project results enables the actual report to be kept compact to provide the most important information all on one place while all of the supplementary deliverables (guidelines, manuals, reports etc. produced during the project) are stored in electronic format (on CD) attached at the end of the report on physical (hard copies) and as url links on the electronic versions.
The activities and progress made on each component are summarised below.

2.2 Component 1: Inclusion of Turkmenistan

The project made several visits to Turkmenistan to engage and encourage their key organisations and local experts to participate in the workshops and training provided by the project to beneficiary countries. The project team also tried on numerous occasions to establish contact with Turkmenistan Government via different communication channels (Ministry of Foreign Affairs (MoFA), Turkmenistan embassy in Ukraine, TRACECA Permanent Secretariat, EU liaison office in Ashgabat, and even through EU headquarters to Turkmenistan embassy in Brussels but had no success through any of these means in getting engagement by Turkmenistan beneficiary stakeholders. After these numerous attempts spanning the initial 10-12 months of the project the project team regretfully came to the conclusion that it was not possible to involve Turkmenistan into the Project activities and, with agreement of EU Programme Manager, it was decided to cancel Component 1 and to just accept that Turkmenistan was not yet ready to participate, as a beneficiary country, to this project. Despite Turkmenistan no longer being officially part of the project, the project team continued to circulate documents and to invite Turkmenistan to send participants to workshops and training activities. They did not participate in any such activities.

Figure 1 Good and bad practices on roads in Turkmenistan.

	
Good example (usage of variable message signs on city roads in ASAHGABHAT	Bad example (un safe solution of U-turn) on interurban road

2.2 Component 2: Major Institutional Issues – Regulatory and Institutional Reform

This sector covers management coordination and funding of road safety, awareness raising amongst key decision makers, crash data systems, domestic safety legislation, international EU agreements and UN conventions, road safety implementation training workshops and action planning workshops. Progress in each of these areas and the activities implemented in relation to the above sub-components are detailed as follows.

2.2.1 **Management, Coordination and Funding**

During the project period considerable progress was made in this sector with action planning workshops (typically involving 40-50 participants from the key government, private sector and NGO stakeholders in each country) now having been completed in all 9 countries. Draft National Action Plans (NAPs) have been agreed for all 9 countries. These were prepared in consultation/cooperation with multi sector working groups formed in each country during each national action-planning workshop. The plans, after project team assistance to incorporate the first round of comments, are now being finalised by each country.

The 3-year Priority Action plans were designed to focus on eliminating the obstacles and impediments preventing effective road safety activity so that stakeholders could start to do more road safety activities in their areas of responsibility. Some plans have already been finalised (e.g. Armenia) and others are in the process of being endorsed by relevant government bodies. Mission reports, collected materials/data, etc. are stored on attached CD, within separate folder dedicated to Component 2/NAPs.

Figure 2 National action planning (NAP) Workshops

	
NAP Workshop in Georgia	NAP Workshop in Armenia

	
NAP Workshop in Kazakhstan	NAP Workshop in Kyrgyzstan

Following the NAP workshops, the project team made repeated visits to each country to make senior decision makers aware about the scale of the road safety problem and huge recurring socio economic losses (typically 3-5% of annual GDP) being borne in each country as a consequence of not addressing the road safety problems effectively. The purpose was to bring road safety higher up the political agenda and to gradually work our way up to the highest political decision makers. There has been particularly significant progress and impact from such Project team activities in several countries.

In Ukraine advice has been provided to relevant government organisations on safety legislation, coordination, management and funding of road safety. The project team have also assisted in getting a Euro 1.5 million EU grant through European Investment Bank (EIB) to help Ukraine in improving key aspects of road safety engineering related to Road Safety Audit. The project team has also made presentations in Parliament and worked with /advised Parliamentarians and Government Ministries on the legislation needed to restructure road safety activities for more effective coordination and management of road safety issues in Ukraine. Improvement of road safety is now an explicit commitment and stated as such in the coalition agreement of the new Coalition government and the project Team Leader is regularly providing advice and background documents to the Chairman of the newly established Parliamentary road safety subcommittee, which has been established to oversee road safety activities. Discussions have been held about funding of road safety and there is now legislation tabled in Parliament seeking to establish a National Road safety Agency and a funding mechanisms to establish a sustainable road safety fund using a small %age of the funds allocated for road infrastructure plus a portion of the funds from traffic fines. This is likely to be established during 2016.

In Kazakhstan presentations have been made in Parliament in support of new road safety legislation incorporating mandatory road safety audits. Advice has also been provided on alternative organisational structures that could be considered to improve management, coordination and funding of road safety in Kazakhstan. Advice has also been given on innovative funding mechanisms that can be used to raise funding for road safety.

In Armenia the project team arranged for ADB to finance a delegation (including Minister of Transport and Head of Traffic Police) to attend the high-level 2nd Ministerial Global Conference on Road Safety in Brasilia to make them more aware and supportive of the need to improve road safety. The project team has also helped to redraft the Prime Ministerial Decree related to road safety to improve the structures for management and coordination of road safety. Discussions have also been held with the Insurance industry and Insurance Regulator (Central Bank) to discuss a possible levy on 3rd party motor insurance to finance road safety activities.

In Kyrgyzstan a new Presidential decree has been issued and a strengthened new National Road Safety Commission (Deputy Minister level) has been established chaired by the Deputy Prime Minister. The project team have had discussions with the government and insurance industry to encourage introduction of Mandatory 3rd party motor insurance, from which a small levy can be taken to provide funding for a strengthened Road Safety Secretariat for the new Commission to improve management and funding of road safety. The Team leader was invited by Deputy Minister of Transport (who is also Deputy Chair of Road Safety Commission) to comment on the road safety legislation and the regulations that are being developed.

In Georgia, there is also scope for optimism and the project team have assisted relevant Government Ministers, the insurance regulator and insurance industry to start discussions about development of a suitable mandatory 3rd party insurance system, on which a levy can be included to enable better management and funding of road safety activities. Discussions have been held with Deputy Minister of Interior, Minister of Regional Development (responsible for roads) Minister of Economy and Sustainable Development and other key senior decision makers to raise awareness of road safety issues and the need to do more. The Deputy Minister of Interior is preparing new legislation to strengthen road safety and the project team has provided information.

Presentations in Parliament in Kazakhstan

Presentations in Parliament in Ukraine

Similar meetings at high political level (Ministers or Deputy Ministers of Transport, Interior and other ministries as appropriate) have been held in **Tajikistan, Uzbekistan** and **Moldova** to raise road safety issues to a higher level and to encourage governments to establish more suitable structures and mechanisms to enable more effective management, coordination and funding of road safety. In **Azerbaijan**, The Deputy Prime Minister, in his role as Chairman of the Road Safety Commission in response to the project activities, requests and advocacy efforts has sent out a letter and the project assisted road safety action plan to the 7 key government ministries and agencies instructing them to do more on road safety issues as proposed in the Action Plan.

Consequently, there are very encouraging developments at political level in all 9 of the project beneficiary countries, where the project team have been able to implement some activities. The activities in promoting better management, coordination and funding of road safety have been complemented by a number of other integrated safety strengthening activities initiated by the project, This has included review and gap analyses of the crash data collected in each country in relation to the EU wide (and recommended) CARE data items, gap analyses of the road design standards against best international practice, encouragement and guidance on road safety research in universities in all 9 countries and initiation of university research projects in some countries e.g. on seatbelts in Armenia and Ukraine . In addition, review of improvements needed in vehicle technical inspections and adoption of UN conventions has helped to create a more a conducive environment for road safety to be developed in each of the beneficiary countries. In most of the project beneficiary countries, the project team have also been given opportunities to help develop or to comment on proposed road safety legislation.

Key related background documents, Mission reports, data, action plans etc. are stored on the attached CD, within a separate folder dedicated to Component 2/ Management.

2.2.2 EU Agreements and UN Conventions

A regional workshop was held in Kiev on the 7 EU Agreements and UN Conventions related to road safety. Sixteen (16) Delegates from 8 countries attended and 7 or 8 additional experts from Ukraine were permitted to sit in on the lectures in the workshop/ training so around 24 local experts participated in the workshop. The presentations were made by the leading international experts on each UN convention. These included

staff of UNECE who are the custodians of the UN conventions and the recently retired chairman of the Global working group on vehicle standards harmonisation. At end of the workshop/ training, the representatives from each country identified the specific areas of need in their countries related to particular conventions. The project team then agreed a programme of country visits for the relevant conventions expert to go and assist each country in the specific areas of need. Five countries identified a need for assistance in UN conventions related to vehicles, 6 countries needed assistance / training in the convention dealing with transport of dangerous goods (ADR) and 6 countries needed assistance on the EU agreement related to working hours of transport crews (AETR). Programmes of visits were organised. In addition, to the regional Conventions workshop and follow up in country visits and meetings the project team had already included in the action plans of each country, the need for countries to accede to the key conventions and to have one of their International Agreements experts participate in UNECE working groups.

Apart from the 7 safety orientated transport related EU agreements and UN conventions identified for attention in the TOR, the team have also introduced participants of the safety engineering workshops / training courses to additional important EU Directives related to road safety such as the EU Directive on Safety in Road Tunnels[6] and the EU Directive on Road Infrastructure Safety and Management[7]. Those activities are described under component 3 dealing with safety engineering.

Regional Workshop in Kiev on UN Conventions and EU Agreements affecting road safety

Ukraine delegate explaining the current status on each UN convention and Ukrainian needs

All submitted deliverables within this task (Mission reports, collected materials/data, etc.) are stored on attached CD, within separate folder dedicated to Component 2/UN Conventions.

2.2.3 Study Tour

In order to provide motivation to beneficiary countries with concrete and reachable examples, the project organised a Study Tour for Deputy Directors / 2nd highest officials from the 3 most important organisations responsible for road safety in each country (traffic police, ministry of transport and roads administration) to show them how other similar countries have improved road safety. Normally such study tours are organised to take senior officials to the countries with the best road safety (e.g. Sweden, UK, Netherlands etc.). Although this can be very useful in giving participants an overview of what can be achieved in a country, this can sometimes also be counterproductive and study tour participants can sometimes go away disheartened at the huge gap between their own country and the study tour host country in terms of road safety, systems and funding. They often return to their own countries disheartened feeling that it would be impossible to reach such high levels of safety in their own countries because of lack of similar government support or priority for road safety. It was therefore necessary for motivation and aspirational purposes, to identify a role model country which was similar to them, had had similar problems to overcome but which had been very successful in road safety and which they could relate to better and see as a possible aspirational and attainable role model.

[6] EU directive 2004/54/EC on minimum requirements for tunnels in Trans- European road network

[7] EU directive 2008/96/EC on road infrastructure safety and management

Serbia was selected as the role model as it once had similar ex-Soviet Union systems, practices and constraints to those still now existing in TRACECA countries. Serbia, like the TRACECA countries, is a low and middle income country (LMIC) and is not a EU member country. Despite this, Serbia achieved very impressive reductions in road deaths over the last 14 years reducing deaths from 1275 per year to 550 per year – a 57% reduction over the period! They did this by voluntarily adopting and where appropriate adapting best practices from Europe and applying them in their country. As a result, they have achieved similar reductions as the EU countries and this experience offered more motivation and encouragement to study tour participants than going to the best countries in EU. Furthermore, because the reforms had been done only recently they were able to talk directly to and to discuss with the actual individuals who introduced the various reforms implemented in Serbia. They were thus able to discuss and explore the problems and difficulties in introducing such reforms in a post-socialist system environment. Follow up visits and discussions in country confirmed that the participants all returned to their countries very well motivated and determined to do more and with a feeling that if Serbia – a country like theirs but in many cases less wealthy - could do it, then there was no reason why their countries could not also do it.

The Study Tour was held in Belgrade, Serbia, during the period 23-28 March 2015. It was implemented in the Police Academy which had a range of different sized lecture theatres, restaurant and other facilities required for breakout group working and sector specific lectures. In addition, site visits were arranged to key stakeholders so that participants could have discussions with counterparts who had been directly involved in the major reforms implemented in Serbia during the last 15 years. Site visits undertaken included visits to National Road safety Agency, “Roads of Serbia” road administration, Traffic Police HQ, Vehicle inspection stations (‘’Dunav auto’’), NAVAK drivers training centre, Automobile Association etc.

Workshop / Study Tour attendance was 22 participants from 8 TRACECA countries, and there was a very active discussion throughout the workshop. There were joint lectures on some topics and the 3 groups (police, roads and transport ministries) had breakout groups for discussions, lectures and site visits on sector specific subjects as well as country specific breakout groups so that the 3 key persons from the 3 key agencies in each country could discuss and agree what they needed to do on their return to their particular countries to introduce some of the things they had learned on the study tour.

<table>
<tr><td>  </td><td>  </td></tr>
<tr><td>Lectures at NAVAK Driver Training Academy</td><td>Joint lectures on Safety Issues</td></tr>
</table>

	
Discussion with the Police on enforcement	Visits to Vehicle Testing Stations

2.2.4 Crash Data Systems

Because crash data is often treated as "secret" by the police in many countries of the region, specific efforts were made during the study tour to Serbia to show the senior TRACECA police officials on the tour why crash data has to be available to all stakeholders. They were able to see how such data can be used to reduce the workload on police by engaging others to address safety problems and they were able to discuss directly with senior police officers in Serbia, the merits of sharing data with other stakeholders. They saw how police use such data and performance indicators to do "risk mapping" so that they can deploy police personnel better to target the highest risk locations. They saw how crash data, hospital data and other relevant data is brought together and analysed centrally by the Road Safety Agency in Serbia and then made available to all key stakeholders for sector specific interventions to be developed. This made it easier, for the crash data experts in the team, to later have more productive country visits to police. Before commencing country visits, a special survey form was devised and circulated to all countries to collect basic information about the structure of the data system in each country.

The Crash Data Systems Team visited all 9 TRACECA countries to review existing systems and practices in crash data collection, storage, retrieval, analyses and dissemination and compared the systems against international best practices. The Team benchmarked performance of the crash database system in each of the 9 countries and compared the data currently collected in each country to the CADaS (Common Accident Data Set) that is recommended for use across EU countries. Reports were prepared on each country and these are included in the CD at the end of the report and summarised below.

	
Kyrgyzstan (usage of crash database for black spot management presentation to police)	Kazakhstan (Crash database meeting)

Armenia The Republic of Armenia has a new database which was established in 2015. The crash database has been established as a modern web oriented application. Microsoft SQL has been used for the database management system which is a good basis for upgrading to the recommended CADaS structure. Armenian

crash data system is now in a developing phase and can be improved by incorporating the best European practice and by adopting the recommendations from the European Commission. it is also important to work on the establishment of an open database which will provide access to all institutions and organizations in Armenia that are included in the system of data exchange and the system of traffic safety in general. Armenia seems willing to be included into a centralised regional database if such a database can be established

Azerbaijan A new data base was installed in 2014 and the system is now under further development but the police were not willing to share any information about the data base with the project team. At present the Azerbaijan crash data system and structure of collected road accident data is very much a "closed" system which the police hold as "secret". It is not known which type of software platform they use for the road accident database or which kind of crash data structure they have. The poor cooperation and data sharing between State Road Police, road authorities and other potential users of crash data is a major impediment to improvement of road safety and improvement of the current crash database system in this country. The police appear to have little understanding of the need to make the data base available for further analyses by other key stakeholders and at present only supply data on tables when requested. Since they do not even share data freely with other stakeholders in Azerbaijan, it is unlikely that they will be willing to participate in a regional data base

Georgia At present, the Georgian crash data system is in its first phase of development and it needs special attention. At this moment, there is no electronic road accident database in Georgia. On the other hand, since the World Bank is assisting in establishment of an improved electronic crash database, now is a good time for including and updating the crash data structure into the new database. Guidance and advice has been provided on such issues. Georgia appears to be willing to be included into a centralised crash database of TRACECA countries if such a database can be established.

Kazakhstan The current road accident database system in Kazakhstan is reasonable. Oracle is used for the database management system (same as in Ukraine), which is a good basis for upgrading to the recommended CADaS structure. A very important conclusion is that they show goodwill and appear to be willing to improve the system and to share the data. The fact that their data is open and available to other stakeholders is a good example for other countries of the region and they are willing to be included into a centralised crash database of TRACECA countries.

Kyrgyzstan The existing road accident database in Kyrgyzstan needs to be decentralized so that when an accident happens, road accident data can be put directly into the database from each police station in Kyrgyzstan, which is responsible for road accident investigation and collecting the road accident data. Kyrgyzstan crash data system is still at a very early stage of development and needs to be significantly improved. The current road accident database is in Excel or Access files and there is a need for training of police personnel in analyses of crash data and the importance of sharing data with other stakeholders.

Moldova The crash data system and structure of collected road accident data in Moldova is about the best in the region in comparison to other TRACECA countries. On the other hand, they still have not established an open road safety database, even though they have good technical capability to do that. They are in a good position to take the necessary steps in future to make their crash data system comparable with many other European countries. They are the most compatible with CADaS but there is still a need to collect some additional important items that are not currently collected. They are willing to participate in a regional database.

Tajikistan The existing road accident database in Republic of Tajikistan is at a very early stage of development and needs to be decentralized so that data collected can be directly put into database from every police district in Tajikistan, not only from State traffic inspectorate in Dushanbe. There is significant need to improve knowledge and capacity to analyse data and accessibility to the data. There is also a need to move from the existing Excel or Access based system to a modern system based on Oracle or SQL. Approval of Ministry of Interior – State Traffic Inspectorate will be needed before data can be included on a regional database.

Ukraine The Ukrainian crash data system is currently being improved. It is established as a modern web oriented application, developed in Java programming language and Oracle has been used for the database management system which is good basis for upgrading to the recommended CADaS structure. The basic

system seems good but there is a need to make it more open and accessible to other stakeholders. However recent and ongoing restructuring / reform of the police (the 5 biggest cities so far) is causing problems and the new police are not always collecting crash data in their jurisdictions so the quality and completeness of crash data has deteriorated in the last year since the police reforms commenced. Ukraine seems willing to consider making its data available in a regional database.

Uzbekistan The existing road accident database in Republic of Uzbekistan needs to be decentralized so accident data can be put directly into the database from every police station in Uzbekistan, which is responsible for road accident investigation and collection of road accident data. They have significant need to improve knowledge and have very huge needs in improving their knowledge about road accident databases and analyses and on the benefits of making data accessible to stakeholders. Information was not provided on the systems in use as data is still considered to be confidential by Uzbek police.

2.2.5 Safety Programme implementation and training activities

The very successful road safety programme in Serbia - a country with similar systems as exist in the TRACECA region – was a very useful role model for what can be done in a country despite the constraints and problems endemic in such former ex-Soviet Union systems and structures. A unique characteristic of Serbia was that the major road safety reforms which led to the 57% reduction in deaths in 14 years were initiated, led by and orchestrated by the Academics in Belgrade University who thus gained enormous practical experience in how to initiate and implement major reforms and safety programmes in an ex-Soviet Union system. Their practical experience was therefore potentially of immense practical value to senior decision makers in the TRACECA region. The implementation experts in the project team were drawn from those who actually planned and implemented the reforms in Serbia. The Implementation team visited all 9 project beneficiary countries to share their implementation experience with 10-12 senior staff from the key stakeholders responsible for road safety issues in each country. They also held workshops and meetings with the academics/ professors and researchers from the leading universities and research institutes in each country.

As part of the 'institutionalising" activities, these academics collected information on curricula of local engineering courses and had preliminary discussions with local academics in universities in each country to explore how road safety modules might be integrated into local university courses and on how road safety research might be best initiated/ developed in a number of areas including where feasible, estimation of the socio economic costs of traffic accidents. Where possible, research was initiated and links established for possible future joint research projects between the academics in TRACECA countries and their colleagues in Belgrade University.

Safety Programme Implementation and Academics Team in Kharkiv, Ukraine

Safety Programme Implementation and Academics Team in Kyiv, Ukraine

	
Safety Programme Implementation and academic Team in Yerevan, Armenia	Safety Programme Implementation and academics Team in Baku, Azerbaijan

Motivating Stakeholders and Mobilizing academics in TRACECA region

Armenia The Serbian experts visited Armenia 26-30 October and presented their Serbia implementation experience to key stakeholders They also had discussions and implemented workshops with faculty members (Dean plus professors) and postgraduate students from the Polytechnic University. The present curriculum was discussed with the professors and they were given a road safety module (15 lectures / power point presentations) they could use in their teaching of final year and post graduate students. They and their students were first introduced to risk mapping, research techniques and data collection methods on crash costing , speed surveys and seatbelt surveys and later the Professors and their post graduate students were given practical experience in data collection and analyses. The local academics were mentored and assisted to produce their first road safety research report on seatbelt usage surveys to quantify the numbers wearing seatbelts in Armenia.

Azerbaijan . The academics made a visit to Azerbaijan and presented their implementation experiences in Serbia to the key stakeholders. They also met with faculty and students from Azerbaijan Technical university and introduced them to road safety research techniques and methodologies for data collection and research in crash costing , seatbelt usage surveys and speed surveys . The existing curricula were also discussed with the academics and they were given a module of 15 road safety lectures / presentations that they could incorporate into the teaching of final year and postgraduate students.

Georgia The academics made a 2 day visit to Georgia and presented their implementation experience to representatives and advisers of the key organisations with road safety responsibilities. Although some of the participating organisations and their advisers are academics who can and do undertake research (e.g. Centre for Disease Control, land transport authority etc) unfortunately, no representatives of the local university were available to meet the team as it was a local public holiday. Consequently, the work undertaken on academic issues was restricted to discussion of the need for and importance of road safety research, discussion of techniques and methods. Suitable teaching materials were left for passing onto the university academics.

Kazakhstan The academics made a 2 day visit to Astana, Kazakhstan on 6-7 July 2015 to make presentations to the key stakeholders and later made a second visit to Almaty, Kazakhstan in Sept 2015 where the leading technical universities and research institutes are located. Meetings involved the leading professors and researchers from the the road research institute (Kazdornii), the Kazakh Automobile and Highways university, Kazakh Agrarian University, Kazakh National Research Technical university and included discussion of current curricula in universities and provision of a road safety module of 15 lectures of power point slides that can be used in teaching final year and postgraduate students. Research techniques and data collection methodologies were also presented for research into crash costing, speed surveys and seatbelt usage surveys.

Kyrgyzstan The academics visited Kyrgyzstan 10-11 July 2015 and made presentations to the key stakeholders and then had discussions with Faculty and postgraduate students from Kyrgyz university. The professors met were curricula developers and their curricula is used in the other universities so that there is

a harmonised and uniform teaching of transport in Kyrgyzstan. Some teaching of road safety is already included but this is limited and needs to be expanded. Almost no research is done on road safety. There is interest in doing more and a willingness to do road safety research so information and guidance was provided on research techniques and data collection methodologies for research in crash costing, speeding and seat belt usage.

Moldova The academics made a 2-day visit 27-28 July 2015 and made presentations to representatives of the key stakeholders but the team were unable to meet professors from the local university because there was a public holiday on the day scheduled for the meeting. The importance of research programmes was emphasised and the types of simple research needed was outlined along with the relevant techniques and methodologies that can be used. The information and the module of 15 lectures and PowerPoint lectures was left for handing on to the academics.

Tajikistan The academics made the visit to Tajikistan 16-17 July 2015 made presentations and had discussions with representatives of the key key stakeholder agencies and research institutes. The importance of research programmes was emphasised and participants introduced to research techniques and data collection methodologies for crash costing, speed surveys and seat belt usage surveys. The module of 15 safety lectures was handed over so that more road safety teaching could be included for final year and postgraduate students.

Ukraine The academics made an initial visit to Kiev ,Ukraine 6-7 July 2015 and made presentations on the Serbian experience to the key stakeholders . They then had discussions with Rector and professors of the Kiev National Transport University to discuss current road safety teaching and research in Ukraine. Although there is some road safety included it is based on very outdated Russian textbooks and totally inappropriate to meet modern needs and conditions. A subsequent visit was arranged to Kharkiv because of the larger number of academic institutions based there and joint training workshop was implemented for academics from Kiev National Transport university and Kharkiv National Automobile and Highway University Training was provided to faculty and postgraduate students on road safety research techniques and data collection methodologies for crash costing, speeding research and seat belt wearing. It was agreed that the research will be incorporated into student projects during the next academic year. The road safety module of 15 lectures was also made available to the professors for teaching final year and postgraduates students

Uzbekistan The academics made their initial visit 13-14 July 2015 and made presentations on the Serbian experience to the key stakeholders. They then had discussions with numerous representatives of the Tashkent Automobile and Roads institute. Discussions covered the importance of road safety research programmes to assist and inform policy makers and presentation of road safety techniques and data collection methodologies for crash costing, speeds research and seatbelt wearing research. The road safety module of 15 lectures /PowerPoint presentations was given to the academics so they could introduce modern road safety approaches and techniques to their final year and post graduate students.

All submitted deliverables within this task (Mission reports, collected materials/data, etc.) are stored on attached CD, within separate folder dedicated to Component 2/Implementation-Trainings.

2.3 Component 3: Safer Infrastructure and Vehicles

This component is primarily concerned with ensuring safer road infrastructure and ensuring that only safe vehicles use public roads. Activities and progress during the Project were as follows:

2.3.1 Safer Road Infrastructure

The importance of this component was highlighted by having one of the key experts as a safety engineering expert and a project component involving a number of sub-activities to strengthen such activity. Traffic in this region is expected to grow enormously over the next 20 -30 years and the countries of the region are investing huge resources on improving their road infrastructure (e.g. Kazakhstan alone, is investing about US$14 billion over the next 10 years in improving its road network) Unfortunately much of this infrastructure is being built without adequate consideration being given to its safety aspects and many of the rehabilitated “improved” roads because of the higher speeds now possible, are now contributing even more deaths and injuries than the older “unimproved” roads that they have replaced. Even where road safety audits have been required by the funding agencies and such safety audits are undertaken, the resulting

recommendations are not always implemented by the roads authority. As a consequence, as indicated earlier the region already suffers 19,000 deaths and 200,000 injuries annually.

Unless more safety conscious planning, design and operation of roads is undertaken, these problems will continue and the road safety risks for road users – especially vulnerable road users will increase even more. Consequently, particular emphasis and efforts were directed during this project towards this component to try to introduce the "safe systems" approach to infrastructure and the concept of "forgiving" roads so that road design and protection facilities (guard rails etc.) are such that even if a road user makes a small mistake he should not die or suffer very serious injury. This required development of greater understanding and capability amongst local road engineers and the roads administrations of each country about international best practices, tools and techniques now used around the world to increase the chances of developing safer road networks in future.

Considerable preparatory work had to be done to develop the comprehensive lecture and training materials for the workshops and training courses which needed to be implemented. Safety Engineering Workshops, seminars and practical training included:

- 1 Regional Workshop / Training Course on the EU Directive on Tunnel safety (Kyrgyzstan),
- 2 Sub-Regional "Train the Trainer" workshops / Training Courses on Road Safety Audit and Blackspot Management (Ukraine and Kazakhstan)
- 3 Sub Regional / Training Courses on Safety in Design Standards (Ukraine, Kazakhstan and Georgia)
- 9 In country workshops / seminars on Design Standards and changes needed to enhance road safety
- 9 In country workshops/seminars/ practical exercises on road safety audit implementation

These sub regional workshops developed capacity in general safety engineering, Blackspot Management (BSM) and Road Safety Audit (RSA) across the region and there are now safety auditors in each country of the region who can be used for safety auditing of roads funded by multilateral development banks. The project team then made several follow up visits to each country to continue the practical training. During year 2015, the project team evaluated and marked the practical road safety audit project work of the road engineers that had been previously trained by the project. The best of them were certified by the project as road safety audit "trainers", some as road safety "auditors" and some only as road safety "inspectors" depending on the assessments and marks achieved in the tests. Draft manuals and guidelines have been pilot tested and used by local engineers in preparation of their road safety audit reports. Apart from Manuals and Guidelines a Technical paper / guidance was also prepared indicating alternative possible ways to introduce RSA into existing legislation depending on structure of legislation in a country. These documents were distributed to relevant road safety engineering stakeholders in each country. These safety engineering related guidelines and manuals are available for download from the TRACECA safety project area on the TRACECA website and are summarised below:

1. -G01 Regional Road Safety Audit (RSA) Guidelines
2. - G02 Regional Black Spot Management (BSM) Manual
3. - G03 Regional Road Safety Audit Policy
4. - G04 Typical Safety Engineering problems and solutions
5. - G05 - Regional Guidelines Freight Through Traffic Routing to Avoid Residential Area

RSA and BSM are important road safety tools that are stipulated in EC Directive 96/2008 and should be implemented in each country. There is a need for urgent action to introduce RSA and BSM mandatory procedures required in Law in order to get effective implementation of such practices. Without such legal requirements and obligations, experience shows that most roads authorities will not implement such activities.

For BSM improvements to be done effectively, there is a need for harmonization of the existing road accident databases in each country with the EU Common Accident Data Set (CADaS) protocol since that provides more of the types of information from crash sites that is needed by engineers for Blackspot Management activities. Ideally the accident database should be part of a unified road safety database consisting of different databases of interest from a Road Safety perspective. Even if that is not possible at this stage, existing crash databases need to be made more user friendly and the non-confidential data in such data bases needs to be accessible for use by other stakeholders in each country.

The project team has also carried out a "gap analyses" of the existing (ex-Soviet style) road design standards and practices of scheme approvals / checking in each country to identify the impediments, which are preventing application of modern techniques of safety conscious planning and design. Recommendations have been made for each country on how their current road design standards need to be improved/updated to incorporate more safety engineering and to permit modern speed reduction interventions such as traffic calming on major roads where they pass through small linear communities. The recommendations also show how the process of road design approval can be improved to remove the current (ex-Soviet style) focus on simplistic ''compliance with standards" to one where the proposed road scheme is reviewed from a wider road safety and operational perspective instead of just compliance with (often out-dated or inadequate) design standards.

Safe Design Workshop in Armenia

Road Safety Audit Workshop in Moldova

Regional Tunnel Safety Workshop in Kyrgyzstan

Black Spot Management Workshop in Ukraine

An important characteristic and objective of the Project team's approach to training of local engineers in TRACECA region on road safety issues was to provide a consistency and improved quality of training across the region. Consultants hired to do road design projects are often asked to include some training but such ad hoc training is often cursory, inconsistent and of very variable quality. The systematic and joint training of experts from all countries via the same courses will encourage cross border recognition of qualifications of those trained and certified by this project. The efficacy of this more systematic, quality controlled and uniformity of training has been vindicated. The quality of training has recently been recognised by a Development Bank funded project in Ukraine which has one of the project trained / project certified safety auditors from Moldova included as a full member of the international team of consultants advising Ukraine roads administration on safety audit issues. In addition, another of the project trained / project certified local road safety auditors (this time from Ukraine) is now working as a road safety auditor within another International team in Ukraine and doing safety audits of proposed new designs on another Development Bank funded project.

The fact that such project trained / certified road safety auditors are now able to provide inputs as full technical team members to internationally funded projects across national borders and being recognised by development banks for their safety audit expertise is a credit to the safety engineering training team within the project. This is also a significant step towards sustainability in safety auditing in the region as the Development Banks now have a pool of 20 or more project qualified / certified road safety auditors trained to a consistent quality that they can draw from at local cost for their projects. Information on availability of such

project trained / project certified safety auditors as a potential resource has been made available to the main Development Banks working in countries of the region.

The current situation in each country in regard to road safety in design standards, road safety audit (RSA) and Blackspot Management (BSM) is as follows.

Armenia

Interurban road design standards in Armenia need to be updated to improve road safety. The ex-USSR standards are still partially applied in Armenia and do not have adequate safety content. The greatest need in terms of safe design is in the width of traffic lanes, medians and guard rails in the medians. There is also a problem arising from the many different International Financing Institutions and many different Contractors active in the roads sector in Armenia. This means there is inconsistency in approaches and standards used and this has a negative effect on road safety. Unfortunately, Armenia did not always send engineers to the safety engineering training opportunities that were made available via the project workshops /training in this area so safety engineering remains more poorly developed in Armenia than in some other countries of the region. Interurban traffic continues to pass through linear settlements and no efforts have been made by engineers to change the character of the road to force reduction of speeds when such traffic is passing through such linear communities. As a consequence, road safety often gets worse at such locations when roads are rehabilitated in Armenia.

During the project it became clear that there was significant lack of knowledge in Armenia regarding the role of RSA in the process of rehabilitation and upgrading of roads. Consequently, there is a need to train more designers, supervisors and representatives of roads authority in RSA and RSI techniques so that traffic safety concerns can be better addressed during road rehabilitation/upgrading projects. There is also a need to do better Black Spot Management (BSM), so that existing hazardous locations on the network can be systematically improved by the roads authority to improve traffic safety on the roads in Armenia.

Azerbaijan

The main conclusion concerning road safety aspects of interurban road design standards is that the situation in Azerbaijan is improving. This means that the road safety specialists now have adequate knowledge, but it is important to change legislation and to force road safety tools to be used during design processes in Azerbaijan. There has been some improvement in implementation of measures from RSA (RSI) recommendations. However, recommendations concerning the width of traffic lanes, U turn on the high speed roads, pedestrian crossings on the high speed roads, implementation of barriers in the median and outside of the road etc. often remain unimplemented because of current design standard constraints. These need to be addressed in the next revision of design standards along with the problem of through traffic passing through linear communities along inter urban roads. Speeds need to be reduced through physical measures while such traffic passes through such communities but this is not being done at present.

Georgia

The situation in Georgia is also beginning to improve. Various standards for improving traffic safety are now being applied. However, it is necessary to keep on improving the standards in the area of safe road design. The areas of deficiency in road safety terms are related to width of traffic lanes, medians and guard rails in the medians. With the latest change of design standards, it seems possible that road safety tools that are stipulated in EC Directive 96/2008 RSA can be implemented in most cases but some aspects need to be formalized through institutions and legislation. As in many other countries in the region different International Financing Institutions and lots of different contractors active in the road sector, contribute to road safety problems in Georgia because of inconsistency in approaches and inadequate attention to road safety during design. Absence of any provision to slow traffic on inter urban roads as it passes through small linear communities is also a problem.

Kazakhstan

Road safety aspects of interurban road design standards in Kazakhstan need to be changed as the ex-USSR standards are still being used and these need to be upgraded in the field of safe road design. The main areas of deficiency in those standards are the width of traffic lanes, medians and guard rails in the

medians. RSA and RSI can be implemented in the design process, especially in the projects financed by International Financing Institutions (IFI) but the recommendations are not always fully applied. Standards have not been updated in recent years but the identified need to apply modern tools in traffic safety may encourage their updating. Because of its huge investments in the road sector, there are many different International Financing Institutions and lots of different contractors active in the road sector. This contributes to road safety problems because of inconsistency in approaches and inadequate attention to road safety during design. Absence of any provision to slow traffic on inter urban roads as they pass through small linear communities is also a problem. Kazakhstan now has trained experts in the RSA and BSM and they have adequate knowledge. However, legislation in Kazakhstan should be changed in order to support/ permit usage of traffic safety tools such as RSA, RSI and BSM. Sub-legal documents also need to be produced and adopted in Kazakhstan. Legislation has been drafted and tabled in Parliament and the project team have assisted in supporting it in Kazakhstan Parliament so there is a possibility that it may be introduced during the next few months.

Kyrgyzstan

Interurban road design standards in Kyrgyz Republic need to be changed in the field of road safety. The standards currently in use are basically ex-USSR and they are still partially used. These standards need to be upgraded in the field of safe road design. The main safety deficiencies relate to the width of traffic lanes, medians and guard rails in the medians.

RSA and RSI can and should be implemented in the design process, especially in projects financed by International Financing Institutions (IFI) and all parties need to be aware of the need to conduct RSA and RSI on the roads financed by the IFI. There is a need for more Black Spot Management training, so that the road authority can improve the traffic safety situation on the roads in Kyrgyz Republic.

Moldova

Road safety in interurban road design standards in Moldova has improved significantly and the latest revision of standards (ongoing and officially adopted) have already implemented most of the TRACECA project recommendations. Moldova is now one of the one of the leading countries in TRACECA region in terms of capacity to address road safety. They have even established a legal framework for incorporation of RSA into the system and existing legislation. With these latest changes of design standards and legal documents it seems that the most important road safety tools that are stipulated in EC Directive 96/2008 RSA can now be implemented in Moldova. However, because of past inconsistencies in approaches and absence of obligation to do safety audits some earlier rehabilitations have unsafe features that need to be addressed. Absence of any provision to slow traffic on inter urban roads as it passes through small linear communities is also a problem

Tajikistan

Interurban road design standards in Tajikistan need to be improved to include more road safety. The ex-USSR standards are still in use and have inadequate safety aspects related to width of traffic lanes, medians and guard rails in the medians. Standards have not been updated recently so the need to include road safety may be a way to encourage updating of general design standards. RSA and RSI can and should be

implemented in the design process, especially in projects financed by International Financing Institutions (IFI) and all parties need to be aware of the need to conduct RSA and RSI on the roads financed by the IFI. There is a need for more Black Spot Management training, so that the road authority can improve the traffic safety situation on the roads in Tajikistan.

Uzbekistan

Interurban road design standards in Uzbekistan need to be improved to include more road safety. The ex-Soviet standards have significant road safety deficiencies in relation to width of traffic lanes, medians and guard rails in the medians.

RSA and RSI can be implemented in the design process, especially in the projects financed by an International Financing Institutions (IFI). The road authority needs to instruct all participants about the need to conduct RSA and RSI on the roads financed by the IFI. Although standards have not been updated lately, the need to apply modern tools in traffic safety may speed up their update. There is a need to train more local engineers in RSA and RSI as well as Black Spot Management.

All documents and Workshop presentations) were shared with WS participants. All Mission reports, collected materials/data, etc. are stored on attached CD, within a separate folder dedicated to Component 3/Safer Roads.

2.3.2 Freight Routes and Secure Parking

Within this task, technical assistance / advice was provided on definition of routes for freight/through traffic to avoid residential areas and for the development of a network of safe and secure parking areas for trucks so that services and facilities can be in line with international best practice. The project team specialist visited a selection of TRACECA countries (Ukraine, Moldova, Georgia and Azerbaijan) for discussions with responsible stakeholders (freight industry, government ministries responsible for regulating of freight routes/parking areas and with those responsible for planning and providing such facilities). He only visited those particular countries since he already had previous experience of doing transport related projects in Kyrgyzstan, Tajikistan and Uzbekistan. Consequently, he had some knowledge of conditions in 7 out of 9 project countries.

Guidelines were prepared on management of freight traffic, parking and how to prevent through traffic in residential areas.

HGV parking area in Georgia

HGV parking area in Moldova

All Mission reports, collected materials/data, etc.) are stored on attached CD, within a separate folder dedicated to Component 3/Freight Routes and Parking.

2.3.3 Ensuring Safer Vehicles

Activities in this area commenced with visits to all 9 countries by the vehicle technical inspection expert on the team (who as well as being a vehicle standards expert is a former Deputy Minister of Transport who has implemented a National Vehicle Technical Inspection system), Current technical systems, procedures and practices in each country were assessed and discussions held with relevant government agencies and the private sector to understand the areas for improvement and attention.

The most urgent needs in this sector were identified as being in Ukraine, Georgia and Kyrgyzstan as these 3 countries have suspended vehicle technical inspections for private vehicles (They currently only do inspections of commercial vehicles). It is imperative that vehicle technical inspections be re-introduced in these 3 countries as soon as politically possible as defective vehicles are now probably a major contributory factor in crashes in these 3 countries. The vehicle fleets in all 3 countries are very old (often averaging 15-18 years old) so technical inspection is necessary to ensure that only roadworthy vehicles (regardless of age) are allowed to use public roads.

Assistance and advice has been given on strengthening the existing procedures, regulations and quality / corruption controls in each country where technical inspection is still being done of both commercial and private vehicles. Where such inspections are currently not being done of all categories of vehicle, a road map has been prepared for each country to assist governments to see the steps, processes and time scales necessary if technical inspections are to be re-introduced. The fact that the expert is a former senior politician as well as being a specialist in vehicle inspections means that he understands the political dimensions and constraints as well as the technical aspects and has therefore been able to offer appropriate advice to both political and technical persons in the governments in each country.

Tajikistan, technical Inspection station

Moldova, Technical inspection station

All Mission reports, collected materials/data, etc. are stored on the attached CD, within a separate folder dedicated to Component 3/Safer Vehicles.

2.4 Component 4: Communications and Visibility

As each workshop was implemented, the opportunity was taken, in close cooperation with PR experts in each EU Delegation, to provide articles about the project, the important role of EU in financing road safety activities and the scale of the problem in the country concerned. These were distributed by EU Delegations to local Media. In addition, print and/or TV media interviews have been usually given at most of the workshops to explain the objectives of the project and EU support for road safety. This task continued throughout the project. These activities are summarised below.

1. ***Press Releases (4)***
2. ***Country Specific Articles (9)***
   Country specific articles have been prepared about the road safety situation in each country and the EU funded activity to help improve road safety in that country and across the TRACECA region. These were provided to the EU delegation in each country for their PR sections to use as they wish to promote EU activities in that country. Country specific articles have been provided to EU Delegations in Armenia, Azerbaijan, Georgia, Moldova, Kazakhstan, Kyrgyzstan, Tajikistan, Ukraine and Uzbekistan.
3. ***Press Media Interviews (26)***
4. ***TV Interviews (13)***
5. ***Presentations at External Conferences and Workshops (10)***

2.4.1 Short articles/press releases that can be used by EU Delegations in each country

The EU Delegations in each country were kept fully informed of project activities and the programme of visits of our specialists to their countries and wherever we had workshops, the local EU Delegations were offered an opportunity to participate in the workshop if they wished or to make opening or closing remarks where appropriate. The project on each occasion provided each EU Delegation with appropriate PR materials and where requested, drafted the remarks for the EU senior representative.

All documents within this task (PR material, published materials in audio-video formats, etc.) are stored on attached CD, within a separate folder dedicated to Component 4/Press Releases.

2.4.2 Participation in Conferences and Parliamentary discussions to make presentations

During the project period, the Project team has been asked by some of countries to participate in country specific conferences and meetings to support their country needs (e.g. at the request of the EU delegation in Ukraine, a presentation was made at the Ukraine Transport Donor meeting discussing Ukraine's financing needs in the transport sector). The project team leader was also requested to make presentations in support of proposed road safety legislation in Parliaments in Ukraine and Kazakhstan and has made several presentations at the Parliamentary Road safety subcommittee in Ukraine. The project team leader as part of his international road safety advocacy activities has also made presentations on the project as an invited speaker at major international conferences in Istanbul, Belgrade, Brasilia and Tehran to show how EU is sharing its expertise and assisting countries of Central Asia and Caucasus through this project.

2.4.3 Website /TRACECA portal

The project details are continuing to be displayed on the TRACECA website/portal alongside all the other EU funded projects and that website content is updated at regular intervals. All project related documents and guidelines / manuals have been placed on the site for downloads and the URL for downloading from the website is (http://www.traceca-org.org/en/technical-assistance/traceca-road-safety-ii/downloads).

2.4.4 End of Project visibility and Closing event

In accordance with the project ToR, the Safege Project Team, in cooperation with GRSP Project Team collaborated with the EU Delegation and Georgia Government to organise an End of Project Visibility Event in Tbilisi, Georgia on 18-19 February 2016. The meeting, which was funded by the EU and hosted by the Government of Georgia as one of the project beneficiary countries, was organised to present the findings and impacts achieved by each part of the TRACECA Road Safety II project, implemented during 2014-2016.

The meeting involved 90 participants and had attendance by all 9 beneficiary countries. Participants included up to six-member delegations from each TRACECA project beneficiary country led by senior politician or senior government official and including high level officials from key stakeholders. In addition, there were, representatives from NGOs in each country plus representatives of other key organisations such as the Secretary General of TRACECA IGC Secretariat, senior officials from EU Brussels and from the Local EU Delegation, UNECE and EIB plus some other key international organizations or individuals able to influence road safety in the TRACECA region.

The delegates were given presentations by both Consortia of activities undertaken and expected impacts of their respective parts of the project. Participants were later invited to participate in breakout discussions on how to improve road safety performance in each sector, how to encourage regional cooperation and how to encourage sustainability of the project results after it is finished. They were also invited to comment on and to contribute to a draft Tbilisi Declaration that was prepared to reflect the views/ wishes of participants on what needs to be done to continue improving road safety in the region.

All Presentations and the report are stored on the attached CD, within a separate folder dedicated to Component 4/Closing Event.

	
End of Project visibility and Closing event, Tbilisi, Georgia – 90 participants from 9 countries	End of Project visibility and Closing event, Tbilisi, Georgia - Senior EU and other participants

3 PROJECT PLANNING AND EXECUTION

3.1 Deviations from work plan (activities, deliverables & results)

There were 3 deviations from the original and later modified work plan as below.

The most significant deviation from the ToR and Work Plan was that Turkmenistan national action-planning workshop, despite dates having been agreed with government, first had to be postponed and then had to be cancelled altogether. Later despite several visits by Key experts to engage key agencies and numerous repeated attempts by email, phone and mail (including via official requests from EU in Brussels) to try to involve Turkmenistan in project workshops and training activities, there was no response at all from beneficiary stakeholders or official agencies in Turkmenistan. Turkmenistan opted not to participate in any of the workshops and activities that the other project beneficiary countries benefited from and eventually, with the agreement/ approval of the EU programme manager, component 1 related to involving Turkmenistan was deleted from the work programme altogether.

The second area of deviation from the original work plan were related to UN conventions as it did not prove possible to arrange a trip to the UNECE working party in Geneva for those dealing in each country with UN conventions. When requests were made during visits for countries to identify individuals to attend meetings, it was found that most of those dealing with introduction of UN conventions into local laws did not have enough language ability in English to make the trips to participate in UNECE technical working meetings Geneva worthwhile. The very few individuals from relevant organisations who did have adequate language capability were already extremely busy on other international trips with delegations etc and unable to find the time to attend such meetings. In any case, these individuals were generally from the International division with no knowledge whatsoever of technical issues so could not have contributed in any meaningful way to help the country to move forward in this area even if they had attended the UNECEC technical working group meetings.

The third deviation was not from the original work plan but from the revised work plan as the project developed. The ADR (Dangerous goods) specialist was expected to do follow up visits to 6 countries who had identified at the UN conventions workshop, a need for further advice on ADR issues. Unfortunately, due to last minute serious health problems of the ADR specialist, the trip to 6 countries requesting such assistance had to be postponed to the last month of the project, then finally cancelled for the same reasons. Since there was not enough time to identify and mobilise a different expert, this activity had to be cancelled.

Nevertheless, despite these minor problems re UN conventions most countries (as the evaluations and spider charts in section 4.1 show), felt that the project activities and country specific advice provided by project UN Conventions specialists has had a positive impact in this subsector and that things have been moved forward towards the desired position.

3.1.1 Work plan and staffing schedules: Estimated and actual comparisons

The project commenced on 15 Jan 2014 and the original work plan and staffing schedules were given in the inception report. At that time the project was expected to be completed on 14 Jan 2016 two years after commencement and was expected to utilise 300 mandays of KE1 –Team Leader, and 200 mandays of KE 2 – Road safety engineer, 1000 mandays of Senior Technical Experts (STE) and 800 mandays of Junior Technical Experts (JTE). During the project, with agreement / approval of the EU Programme Manager the end date was extended by 2 months to 14 March 2016 and the mandays were modified to 415 for KE1 – TL/Road Safety Engineer, 322 for the KE2 /Civil Engineer, 752 mandays for Senior Experts and 862 mandays for Junior Experts.

The resources used from beginning to the end of the Project are summarised in the Table below by each 6-month period as reported in the 6 monthly interim reports.

Table 2. Resource utilisation

Item	Project time consumed	Mandays consumed			Incidental budget consumed
		Key experts (KE)	Non key Senior experts (STE)	Non Key Junior Experts (JTE)	
First Interim Report (at end of first 6 months)	25%	36.8%	0.9%	14.1%	5.7%
Second Interim Report (at end of first 12 months)	50%	69.3%	12%	34.5%	22%
Third Interim Report (at end of first 18 months)	75%	81%	42%	65%	About 55%
Fourth Interim Report (at end of first 24 months)	92%	93%	61%	90%	72%
Interim Report 5 (at end of 26 months as at 14 March 2016)	100%	98%	63%	97%	82%

The eventual work plan and staffing schedule for the project as implemented is shown in Annex B.

4 EVIDENCE OF RESULTS AND IMPACTS ACHIEVED BY THE PROJECT

4.1 Assessments of impact by beneficiary stakeholders

At commencement of the project, although not a requirement of the TOR, a benchmarking exercise was undertaken to try to assess the current stage of progress in each sector, in each country, in relation to the recommendations of the previously prepared TRACECA Regional Action Plan. Senior representatives of the 8-10 key stakeholder organisations in each country were gathered together during country visits of the inception period and asked to discuss and make their joint best estimates of progress towards achievement of a number of institutional development indicators, e.g. "is there a national body to coordinate road safety?" , "is there legislation defining responsibilities of that body and other key stakeholders ?", "is there a sustainable funding mechanism to fund road safety activity"? etc. The stakeholders after some discussion came to a consensus on allocating a %age score to reflect progress towards completion on each indicator and that was taken as the base position at project commencement.

At the subsequent National Action Planning (NAP) workshops in each country, where a larger group of 40-50 representatives of key stakeholders participated in 4 days of discussions on safety issues in each sector, groups of sector specific experts were asked to review/ check the scores for their particular sectors and where necessary to amend / correct the scores given earlier. Generally, the earlier scores (given by the smaller group consulted at project commencement) were considered to be realistic and fair. On the very few items where there was a discrepancy, the larger group of experts were asked to give new scores and these amended scores were then adopted as being the corrected "starting position" as at March 2014

At the end of the project (March 2016) two years later, this exercise was repeated and the tables of estimated %age scores were sent out to each country with a request that they gather and consult with the key stakeholders to assess and check[8] the estimated current stage of safety development on exactly the same indicators as had been used in the original benchmarking exercise. That earlier exercise, after the minor adjustments at Action planning workshops had established the "starting position" in each sector and on each indicator within each sector at project commencement and the new updated assessments would give the "end position" at project end, two years later. This was done and final scores were returned by 8 countries. Not a single indicator was considered by countries to have been over estimated by the Project team. In fact, the only changes / corrections made by the beneficiary stakeholders was that they considered the scores and progress to have been higher in some aspects than had been estimated by the project team and they increased scores in such cases as they felt the Project team had been too conservative / cautious in estimating the progress and impact achieved in their country.

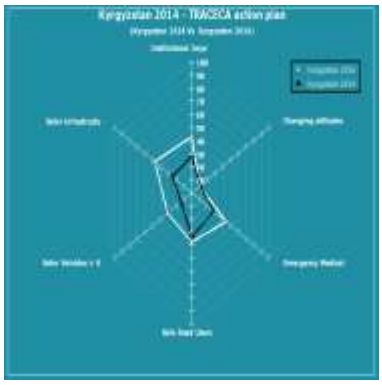
The "before" and "after" results from the comparison of "starting position" and "ending position" show the real institutional impact of the project in each of the sectors addressed by the Safege-led consortium – as assessed by the beneficiary stakeholders and beneficiary countries themselves.

The DEE[9] spider charts below show (as a black line) the position in percentage terms -between 0% and 100%- in each country, in each sector and sub sector at project commencement – end of Inception Phase (March 2014). The white line on the same spider chart shows the position in each country, in each sector and sub sector at the project end (March 2016). It can be seen that in most cases, the project appears to have had a positive impact and moved things forward (i.e. the %age score is higher) indicating an increase

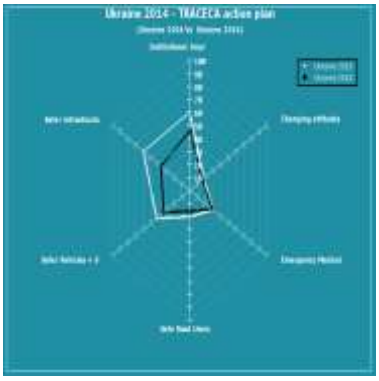
[8] End of project scores were estimated by the project team and countries were asked to check / confirm the project team estimates and to change any that were felt to be inaccurate. They were told that if there was no change reported after three weeks it would be assumed that estimates were acceptable. Eight (8) out of 9 countries not only confirmed that estimates were accurate but actually increased scores on several items as they felt progress and impact was greater than had been assumed by the project team. Only 1 country Kazakhstan was unable to confirm or amend scores in period requested so their end of project scores remain as were estimated by the project team

[9] For Further information, see attached CD, within a separate folder dedicated to Component 1/ Benchmarking / evidence of final results and impacts.

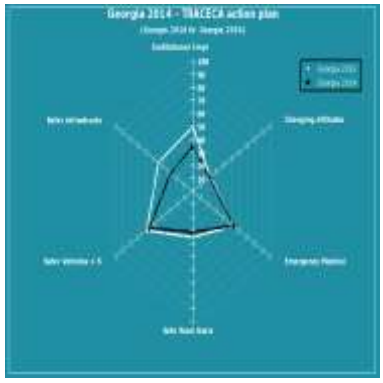
or improvement has occurred in terms of institutional development and capacity building in the key sectors and within the key stakeholders.



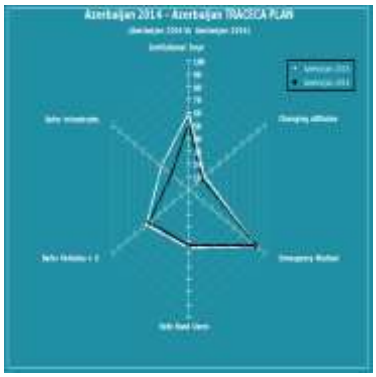
Kyrgyzstan



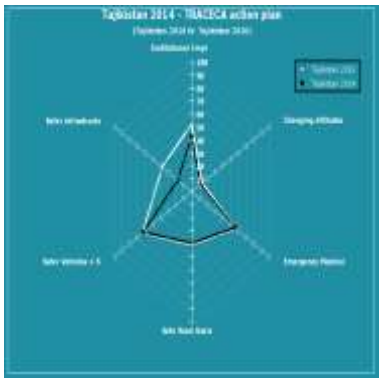
Ukraine



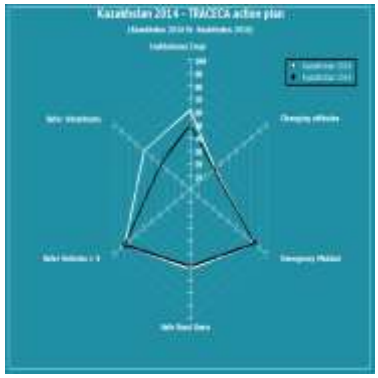
Georgia



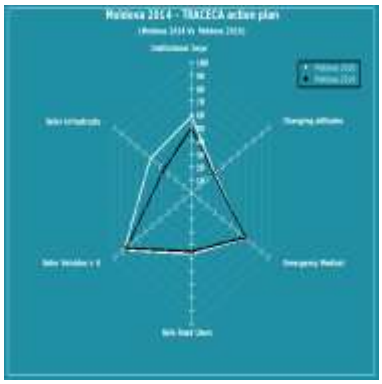
Azerbaijan



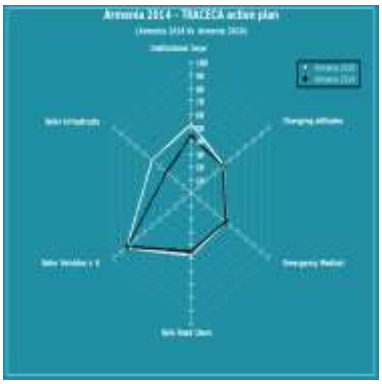
Tajikistan



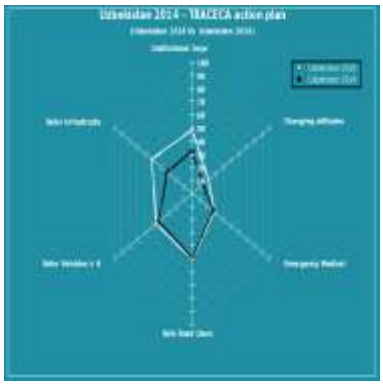
Kazakhstan



Moldova



Armenia



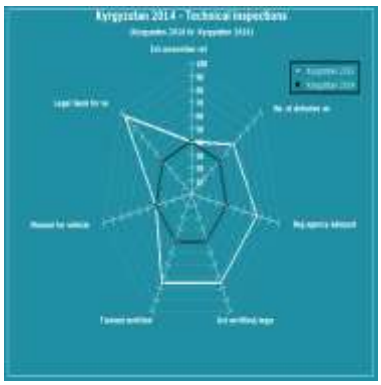
Uzbekistan

The above pictures show how local stakeholders in each country have assessed progress in each of the 3 sectors of the Regional Action plan addressed by the Safege-led consortium project i.e. Institutional Issues, Safer Infrastructure and Safer Vehicles. (at clock positions 12. 10 and 8 on the spider charts). Although none of the sectors has been taken to its' fullest development (to 100%) there is no doubt that some significant improvements have been achieved in each country and in each of these sectors (i.e. the white line representing March 2016 shows a higher %age score than the %age score of black line representing March 2014).

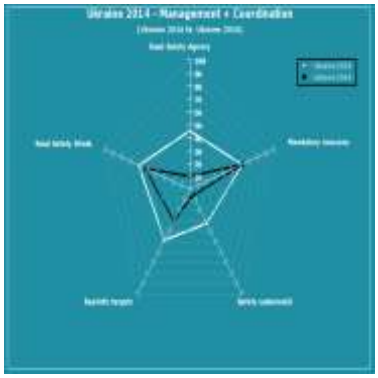
The impacts and improvements become even more visible and evident when each sector is examined in more detail at subsector level for each country. The impacts in Institutional Issues, Safe Infrastructure and

Safe Vehicles are shown below for a sample of the countries to illustrate the progress in a few subsectors within each sector.

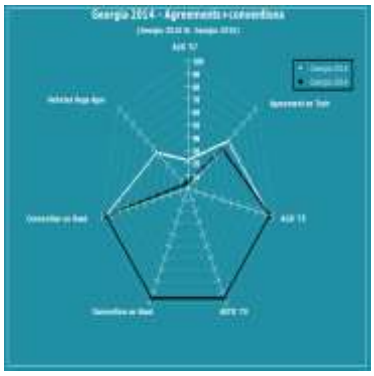
These and other additional spider charts are presented / stored on the attached CD, within a separate folder dedicated to Component 1/ Benchmarking / evidence of final results and impacts.



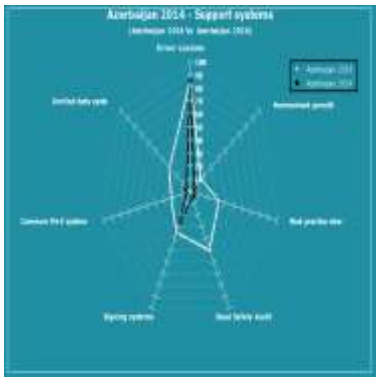
Kyrgyzstan –tech Inspections



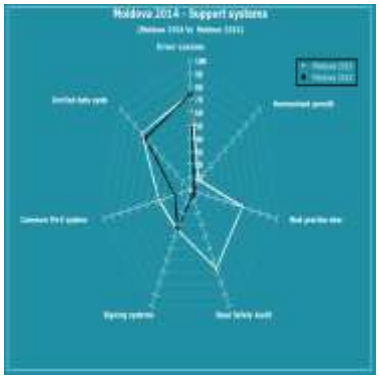
Ukraine -Management



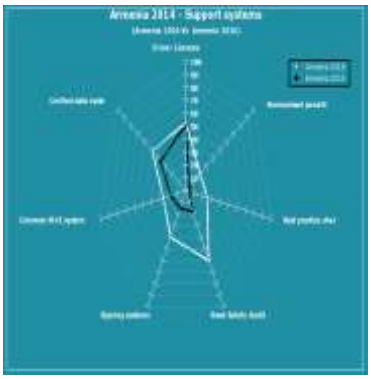
Georgia UN Conventions



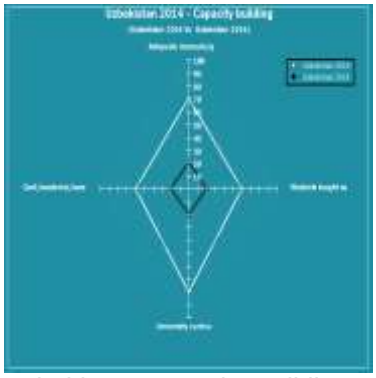
Azerbaijan Support Systems



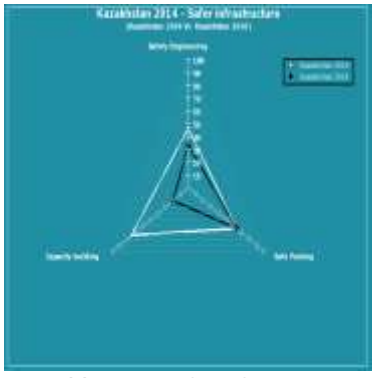
Moldova Support systems



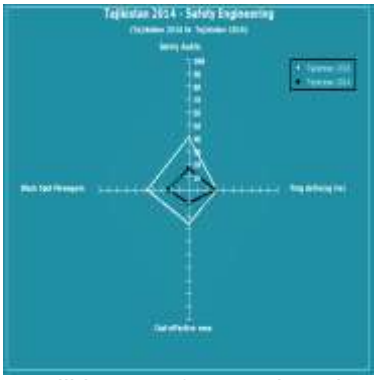
Armenia Support Systems



Uzbekistan Capacity Building



Kazakhstan Safe Infrastructure



Tajikistan Safety Engineering

The above spider charts show a sample of the spider charts to illustrate progress in different subsectors within the sectors addressed by the Safege-led consortium project e.g. Management and Coordination, Safety Engineering Capacity Building, Support Systems etc. It is very important to note that these are the assessments of impact as confirmed and reported by the **actual beneficiary stakeholders** or recipients of the services provided.

These and other additional spider charts are presented / stored on the attached CD, within a separate folder dedicated to Component 1/ Benchmarking / Evidence of final results and impacts.

4.2 Logical Framework and Objectively verifiable indicators (OVIs)

The consultant's proposal included a logical Framework. The following section and Table 3 outlines the progress and Consultants 'comments on the Objectively Verifiable indicators OVIs

Table 3 – LOGFRAME

INTERVENTION LEVEL	INTERVENTION LOGIC	OBJECTIVELY VERIFIABLE INDICATORS (OVIs)	RESULTS ACHIEVED
OVERALL OBJECTIVE	Implementation of TRACECA RRSAP, ensuring that corridor transport system actively/properly promotes safety, security and protection of users, the public and the environment	- Decrease in the number of 30 day fatalities - Decrease in annual rate of increase in road deaths - Decrease the level of vehicle emissions	The project activities in institutional strengthening and capacity building will contribute significantly towards these OVIs over the longer term but the 2-year project is too short to see results in terms of decreases Advice has been given on vehicle emissions and introduction (where discontinued) vehicle inspections. That will lead to less emissions
PROJECT PURPOSE	▸ Complement the RRSAP with recommendations on Turkmenistan ▸ Support beneficiary countries with the accession, ratification and implementation of 7 (specified) UNECE agreements	- Inclusion of Turkmenistan in RRSAP - Number of countries who have acceded to conventions and agreements - Increased accession and implementation by TRACECA countries	The requirement to assist Turkmenistan (with EU program manager agreement) had to be deleted from the project because Turkmenistan opted not to participate in the project activities Experts from the 9 countries have been given overviews and general advice / assistance and each country has identified its most urgent needs for assistance / advice. Relevant UN conventions experts have visited those countries and assisted in legislation, procedures or training as required. This assistance has moved each country forward and will lead to more countries acceding and implementing UN conventions and EU Agreements
RESULTS PLANNED	**RESULT 1: CLEAR VIEW ON (PRIORITIZED) ACTIVITIES FOR TURMENISTAN TO IMPROVE ROAD SAFETY**	**INDICATORS OF THE RESULT 1: CLEAR VIEW ON (PRIORITIZED) ACTIVITIES FOR TURMENISTAN TO IMPROVE ROAD SAFETY**	3 separate visits were made to Turkmenistan by the team leader and numerous other attempts were made through different channels to involve Turkmenistan - without success The EU Program Manager has approved deletion of the requirement to include Turkmenistan into the project activities.
		Assessment completed.	
	RESULT 2: SUSTAINABLE PROGRESS IN ACCESSION TO 7 SPECIFIED AGREEMENTS BY TRACECA COUNTRIES AND CLEAR PROGRESS IN IMPLEMENTATION OF MAIN PROVISIONS	**INDICATORS OF THE RESULT 2: SUSTAINABLE PROGRESS IN ACCESSION TO 7 SPECIFIED AGREEMENTS BY TRACECA COUNTRIES AND CLEAR PROGRESS IN IMPLEMENTATION OF MAIN PROVISIONS**	- Regional workshop on the EU Agreements and UNECE Conventions related to road safety was held on 10-13 March 2015 in Kiev, Ukraine. Sixteen delegates from 8 TRACECA countries attended the workshop/ training. - Individual experts on EU Agreements and UNECE Conventions were deployed to make 2-day visits to different groups of countries in accordance with the needs identified and specific assistance as requested by individual countries at the regional UNECE Conventions workshop. - Each expert provided advice/practical training in the specialist area to build up the local capacity and to strengthen the ability of the governmental to elaborate operational and regulatory reforms foreseen by the provisions of the international agreements. - In many countries the existing legislation has been revised and the new legislation is developed according to the norms and standards of the EU Agreements and Conventions see CD, within a separate folder
		Relevant official documents produced including new legislation MoUs or Agreements modified or signed accordingly	

INTERVENTION LEVEL	INTERVENTION LOGIC	OBJECTIVELY VERIFIABLE INDICATORS (OVIs)	RESULTS ACHIEVED
		Countries with a road safety policy being implemented	dedicated to Component 1/ Benchmarking / Evidence of final results and impacts section and component 2 /UNECE Conventions
	RESULT 3: MODERN RS STANDARDS ARE TAKEN INTO ACCOUNT IN PROJECT IMPROVING EXISTING INFRASTARUCTURE, INCLUDING TUNNELS	**INDICATORS OF THE RESULT 3: MODERN RS STANDARDS ARE TAKEN INTO ACCOUNT IN PROJECT IMPROVING EXISTING INFRASTARUCTURE, INCLUDING TUNNELS**	- A number of Regional Guidelines and Manuals have been prepared, as follows: - G01 Regional Road Safety Audit Guidelines - G02 Regional Black Spot Management Manual - G03 Regional Road Safety Audit Policy - G04 Typical Safety Engineering problems and solutions - The project team has also done a "gap analyses" of existing (ex-USSR style) SNIP and GOST road design standards and practices of scheme approvals / checking in each country to identify the impediments, which are preventing application of modern techniques of safety conscious planning and design. - As a result of project work the design standards in several countries have been improved. Ukraine for example has now incorporated the most important of the project team recommendations into its updated standards and if all approved will have much improved road standards capable of permitting development of a safer road network.
		Countries implementing blackspot management programmes Manuals on road safety audit, black spot management and road safety inspection	
	RESULT 4: STAFF IN CHARGE OF ROAD INFRASTRUCTURE CAPABLE OF UNDERTAKING ROAD SAFETY AUDITS, INSPECTION AND ANALYSES OF BLACK SPOT AREAS IN LINE WITH INTERNATIONAL BEST PRACTICE	**INDICATORS OF THE RESULT 4: STAFF IN CHARGE OF ROAD INFRASTRUCTURE CAPABLE OF UNDERTAKING ROAD SAFETY AUDITS, INSPECTION AND ANALYSES OF BLACK SPOT AREAS IN LINE WITH INTERNATIONAL BEST PRACTICE**	- Regional and sub-regional workshops and training courses ranging from 2 days to 5 days to do capacity building of key experts and potential future trainers from each country. - Over 70 persons trained in safety engineering issues such as, Tunnel Safety, Road Safety Audit and Blackspot Management Programmes. - Over 20 were given an additional 1-week intensive course on safety auditing. - After submission and marking of their practical projects/ assignments, around 15 local specialists were certified as Road Safety Audit (RSA) **Instructors** able to train others in their respective countries and other 5 being certified as Road Safety Auditors. - A pool of 20 Road safety auditors all trained to a consistent level and able to provide safety auditing services at local prices in each country plus a capacity to develop future safety auditors to create a larger pool of road safety auditors to meet the growing needs for such services in the region.
		Countries with local safety audit courses being regularly delivered by local specialists Persons trained in blackspot management	
	RESULT 5: STEPS TAKEN FOR DEVELOPMENT OF SAFE AND SECURE PARKING AREAS WITHIN THE TRACECA REGION	**INDICATORS OF THE RESULT 5: STEPS TAKEN FOR DEVELOPMENT OF SAFE AND SECURE PARKING AREAS WITHIN THE TRACECA REGION**	- The project team specialist has had a series of discussions with freight industry, government ministries responsible for regulating working hours (AETR Agreement) and with those responsible for planning and providing such HGV parking facilities. - Country specific reports have been produced giving recommendation for provision of parking facilities and management of heavy commercial vehicles to avoid urban areas based on international best practice - G05 - Regional Guidelines Freight Through Traffic Routing to Avoid Residential Areas were developed.
		MoU signed, Partnerships initiated MoU signed, new legislation introduced	

INTERVENTION LEVEL	INTERVENTION LOGIC	OBJECTIVELY VERIFIABLE INDICATORS (OVIs)	RESULTS ACHIEVED
	RESULT 6: STEPS TAKEN TO ORGANISE SYSTEM FOR TECHNICAL INSPECTION OF VEHICLES	**INDICATORS OF THE RESULT 6: STEPS TAKEN TO ORGANISE SYSTEM FOR TECHNICAL INSPECTION OF VEHICLES**	- The project expert has made a 2-day visits to each of the countries to assess the effectiveness of current practices in periodic technical inspection of private vehicles and to provide training where needed and advice/guidance on how existing procedures could be improved. - The periodic progress monitoring and follow up visits were done to review progress and to develop road maps for improvement (where a system already exists) or for introducing a periodic technical inspection system (where a periodic technical inspection system for private vehicles has been discontinued/suspended e.g. Kyrgyzstan, Ukraine and Georgia). - The country specific recommendations on the introduction of the obligatory vehicle inspection were given to Kyrgyzstan, Ukraine and Georgia since the starting position and needs of each country are different.
		MoU signed, Partnerships initiated MoU signed, new legislation introduced	
	RESULT 7: PROJECT ENJOYS WIDESPREAD VISIBILITY	**INDICATORS OF THE RESULT 7: PROJECT ENJOYS WIDESPREAD VISIBILITY**	- The general objective of the project's communication activities under this project has been to raise awareness of the local road safety stakeholders and broader public on road safety related issues, facilitate social dialogue and ensure sustainability of action beyond the project life cycle. - The Communication and Visibility Manual for EU External Actions has been used as a main guide. Activities included press releases (4) articles (9) media interviews(26), TV interviews (13), conference presentations (10) - For the full list of communication activities implemented within the project lifecycle, please refer to section 2.4 above
		Number of quotes in local or regional media, websites	
	RESULT 8: STAKEHOLDERS WELL INFORMED ABOUT THE PROJECT	**INDICATORS OF THE RESULT 8: STAKEHOLDERS WELL INFORMED ABOUT THE PROJECT**	- The project team has worked closely with the key stakeholders involved in all beneficiary countries informing them on a regular basis about the current progress of the project, Over 450 individuals participated in just the 9 action planning workshops and many others participated in subsequent sector specific workshops and follow up meetings. In total it is estimated that over 700 persons participated in project activities workshops / and or training Evaluation of project impacts by the key stakeholders in each country has been very positive and their evaluation comparing progress with the position at project commencement is shown in section 3.2.2

5 LESSONS LEARNED, PROJECT SUSTAINABILITY AND POSSIBLE NEXT STEPS

5.1 Lessons Learned

In the process of implementation, a number of issues had to be addressed and a number problems had to be resolved. With the benefit of hindsight, we would like to highlight a number of points that may be helpful if and when similar projects are being devised by EU or others seeking to implement road safety improvements in this region. These are:

1. **Project design:** For a multi sector Road safety project to be most effectively implemented, the problem needs to be addressed in a holistic way with a single organisation authorised to address all sectors and not for it to be split vertically between 2 Consortia as was done on this program. This caused problems with the GRSP consortium not required to or doing anything at institutional organisational structures level in 3 sectors (because they were dealing only with local interventions) but concerned that Safege-led consortium was "encroaching" on GRSP sectors if we, as we needed to, addressed the national level management related issues in these 3 sectors as part of national level management, coordination and funding of road safety. If such a program has to be split in the future, it would be far better to do the split horizontally, so that one consortium deals with **all** sectors from a national or organisational structures perspective, while the 2nd Consortium deals with specific pilot interventions in **all** sectors at local level. That would avoid sectoral and territorial misunderstandings / problems arising between the concerned consortia.

2. **Project management / approval processes:** Although it is recognised that public money has to be fully accounted for and expenditure carefully monitored, the EU requirements in obtaining formal approvals for every expert, mission costs, content and participation, prior to every event, every change in programme etc when there were dozens of such activities, are very onerous and very time consuming both on the EU Program Manager and on the project Team Leader's time – time which in both cases could be better spent on other activities. Maybe the suggested approach in item 3 below could suggest to EU Headquarters staff a way to reduce their workload while maintaining and ensuring quality during the project and giving more flexibility to the team leader to implement activities / tasks in the project.

3. **Benchmarking at Commencement**: On a short 2-year technical assistance project such as this one, it is obvious that the primary impact of the project would have to be in qualitative in terms of institutional development and capacity building achieved and progress made in terms of strengthening the systems that would eventually lead to more sustainable road safety activities rather than actual quantifiable casualty reductions. The project team therefore developed, at the start, a framework of institutional development impact indicators for each sector and sub sector that could be used to assess progress on such issues. As section 4.1 indicates, the situation at project start (in terms of progress on each sub sector and sector) was assessed in consultation with the key stakeholders in each country and recorded in the initial benchmarking report. This exercise was repeated at the project end and the beneficiary stakeholders were able to give their own independent views and assessments of progress. If all EU technical assistance projects were designed on this basis with a similar benchmarking report produced at commencement to record the starting position and perhaps the progress being shown in the 6 monthly interim reports , EU managers could be kept fully aware/ informed of overall progress towards the agreed developmental objectives and desired outcomes so they can intervene when necessary but could be freed from the time consuming extra chore of having to micro manage projects to keep things on track. Team leaders would be forced to focus on the clearly defined target outcomes to be delivered by project end but would then be free to use their specialist skills and project budgets and manpower resources as they deem necessary in order to deliver the agreed outcomes. This saves time and effort of both parties and significantly increases the chances of delivering successful projects by providing effective control and direction (through clear definition of easily assessable indicators for all outcomes to be delivered) and leaving team leaders free use their skills and expertise to deliver results. The efficacy of such benchmarking can be seen from results achieved on this project.

4. **Involving EU Delegations in launch meetings** The Central Asian republics still have particular characteristics now not so often encountered in other regions. The very hierarchical, centrally controlled government structures are very bureaucratic and official letters are required (sometimes through Ministers) even to arrange meetings at technical level between officials of different government ministries. It therefore took considerable time and efforts during the early part of the project to build and gain the confidence of contacts within the stakeholder ministries and all contacts of necessity during the initial several months had to be through the TRACECA country secretaries. Although this worked in a few countries where such persons were helpful and effective, this did cause some serious problems and excessive delays in some cases and prevented the project moving forward as fast as would have been desirable until the team were able to overcome such problems. In future, if such a project is done and access to stakeholder ministries is required, the Ambassador or other very high official at the local EU Delegation should be mobilised to request highest levels of government to hold a high level meeting where the senior officials from key stakeholder ministries could be invited to a formal launch of the project in that country, instructed in writing by their government to cooperate with the project and to nominate a liaison person with whom the project team can coordinate activities during the project. The potential power and effectiveness of such an instruction coming from the very top in such countries was amply demonstrated to the project team in Azerbaijan where a single letter from the Prime Minister to the 7 key stakeholder ministries in Azerbaijan immediately mobilised the key ministries to be more active and responsive to project needs.

1. **Long approval procedures in Beneficiary Countries** These can be very tortuous and it can take 3 weeks or more to get approvals of delegates to attend workshops or courses. No action can be initiated until official letters are received by the stakeholder Ministry, so letters need to be sent to the coordinating or lead ministry but copies also need to be sent to each stakeholder Ministry if their persons are required to participate in any meeting.

2. **There may be a need to move upstream to be able to achieve developmental impact of project deliverables** Some of the project deliverables required significant additional upstream input than had been anticipated. For example, the project according to TOR required training of some selected staff from each country in Road Safety Audit. That project deliverable was done but it was found by the project team that the desired impacts of such training could not be delivered .This was because such trained individuals were not able to implement road safety audits in their countries since there was no mandatory obligation on roads authorities to implement road safety audits on their road works. Furthermore, even where road safety audits were agreed by roads authorities, the recommendations often could not be implemented because the existing ex-USSR SNIP and GOST road design standards would not permit implementation of traffic calming and physical speed reducing measures that are now commonly used in countries with modern international best practices in design standards. Consequently, in this case if the effects of the safety audit training were to have the required developmental impact that the project team wanted the project had to go upstream and look at how such measures could be implemented into existing standards or how such standards needed to be improved . In addition, guidance had to be developed on the different ways that road safety audit legislation could be devised to make it a mandatory obligation on roads authorities. This additional work was done to try to enable the right environment to be created for safety audit to be implementable and so that the desired impacts could be delivered.

3. **Study tours and aspirational role models** Normally road safety study tours are organised to take senior officials to the more developed countries with the best road safety (e.g. Sweden, UK, Netherlands etc.). Although this can be very useful in giving participants an overview of what can be achieved in a country, this can sometimes also be counterproductive and intimidating as study tour participants can sometimes go away disheartened at the very huge gap between their own country and the study tour host country in terms of road safety, systems and funding. They often return to their own countries disheartened feeling that it would be impossible to reach such high levels of safety in their own countries. Furthermore, what can be done in Sweden, UK or Netherlands because governments there are willing to invest in road safety is very far removed from what can be done in low and middle income countries at very early stages of road safety development and where governments do not yet give importance to road safety. It was therefore necessary for motivation and aspirational purposes, to identify a role model country which was similar to them but which had been very successful in road

safety and to which they could relate to better and see as a possible aspirational role model. Serbia like the TRACECA countries is not an EU country and also had similar ex socialist system, practices and constraints to those still existing now in TRACECA countries. Despite this they had achieved an impressive 57% reduction in deaths in the last 14 years – similar levels of reductions as were achieved in EU countries over that period. They did this by **voluntarily** adopting and where appropriate, adapting best practices from Europe and applying them systematically in their country.

Consequently, Serbia was potentially a much more relevant and appropriate role model for countries to aspire to and all participants, although initially very dubious about the merits of going to Serbia for a study tour, went away astonished that a country like them and despite its similar, ex-USSR systems constraints was still able to address its road safety problems effectively and to achieve such huge reductions in road deaths. The study tour participants (from police, roads authorities and transport ministries) were given some joint and some sector specific training each morning and then taken on sector specific site visits each afternoon. These allowed them to talk directly to and to question/ interrogate counterpart officials in Serbian government organisations who were personally involved in implementing the major reforms in organisations and practices to improve how road safety is addressed in Serbia. The participants from TRACECA countries went away highly motivated and enthused feeling that if a country like them, which is not in EU or wealthier or smarter or with better educated officials can do this, then there is absolutely no reason why their own countries could not also do this too. Follow up visits to study tour participants in their own countries, several months later showed they were still motivated and now more determined to apply some of the things they had learned on the study tour.

5.2 Sustainability issues

Road safety is still at a very early stage of development in TRACECA region and governments and even some key stakeholders are not yet fully aware of the huge socio economic costs that road accidents impose on their countries or the need for urgent action. There is ineffective management, coordination and funding of road safety in all countries. Key stakeholder organisations, even the few that do anything on road safety issues, still tend to work in isolation in their own areas and there is very little coordinated effort to harness the synergies of collective action. Police generally to take the main responsibility for road safety in most countries but tend to be secretive about crash data and data is usually not easily accessible to other stakeholders for further analyses. Roads authorities do not take enough responsibility to ensure their roads are as safe as possible and even where road safety audits are insisted upon by development banks, roads agencies do not always implement the recommendations of the safety audits. The continued use throughout the region of outdated SNIP and GOST road design standards where focus is checking road design on basis of simplistic compliance with the standards rather than checking to see of the design is safe; continues to be a problem. The excessive speeds permitted in urban areas, lack of facilities / care for non-car road users and absence of information on the costs of crashes and the types and benefits of alternative countermeasures all inhibit effective management of road safety on the roads of TRACECA countries.

The project therefore tried to give particular attention as part of its strategy to 'institutionalise' road safety to increase the chances of sustainability. A few of the activities related to this are outlined below.

1. **Management and coordination of road safety.** Much of the project Team Leader time was spent in trying to encourage more effective management and coordination of road safety and establishment of appropriate organisational structures to enable this. Although most countries in theory already had a coordinating road safety council or road safety commission (often under the Prime Minister or Deputy Prime Minister), such bodies usually had not met in recent years, had no staff or funds and were there only on paper. For effective management of road safety, there is a need to include in legislation a clearly designated lead agency, with adequate authority and human and financial resources, to do effective management of safety and coordination of road safety issues at national and local level.

Action taken to encourage sustainability in this area. The project team made presentations to senior government officials in all countries about the pros and cons of alternative organisational models that are in use around the world for managing and coordinating road safety, assisted in drafting Prime Ministerial decrees (e.g. Armenia), made presentations in Parliaments to support safety legislation (Ukraine and Kazakhstan). The Project also commented on and helped develop road safety legislation or provided information on safety legislation issues in most of the other countries**. I**mprovements are now underway in these areas in most countries at least partially as a result of project team efforts and if they continue, this will have huge impact on future road safety in those countries.

2 **Financing road safety.** There is no reliable or sustainable funding of road safety in any of the TRACECA countries and as a consequence there is no continuous safety activity or a permanent team funded to manage and promote road safety. The only funding is where ministries allocate some funds internally to do some safety in areas of interest to them. The costs of individual crashes and casualties is not known in any country so it is not possible to do cost benefit analyses to justify expenditure on road safety. Road safety activities and countermeasures are therefore generally perceived as a "cost" and not as an "investment" This lack of understanding means that opportunities are not being taken to organise increased funding for road safety by showing that such expenditure if invested in road safety will give a very high rate of return for the country.

Action taken to encourage sustainability in this area The project team made presentations to senior government officials in all countries about the pros and cons of alternative ways which can be used for funding road safety ranging from levies on compulsory third party motor insurance policies or fuel sales, to a %age of expenditure on roads or a %age of traffic fines. Where possible, such mechanisms have already been included into draft legislation currently under consideration by parliaments (e.g. Ukraine and Kazakhstan). Compulsory third party motor insurance policies offer the best and quickest way to establish sustainable funding since insurance industry can often be persuaded to see this as a loss reduction mechanism and a "good business" strategy (if money is given to reduce crashes and casualties, this will mean less claims made to insurance companies so companies pay out less and their profits will increase). They therefore get a cash benefit from their investment in road safety. In the countries where compulsory third party motor insurance already exists, the project team have had discussions with senior insurance industry representatives and/ or Government insurance regulators to discuss possibilities of establishing a road safety fund from a levy on such insurance policies (e.g. Ukraine, Kyrgyzstan, Armenia, Kazakhstan and Moldova). Where compulsory third party motor insurance does not yet exist, the project team have discussed with the insurance industry, the general insurance regulator and government about establishing such third party insurance legislation (e.g. Georgia).

3 **Development of local academics, teaching and research in universities.** The countries with the best road safety in the world have very effective road safety teaching and research programmes being undertaken by the brightest and smartest brains in their countries in research institutions and universities to understand the problem, to help develop appropriate countermeasures and to monitor their effectiveness. The universities and academics in TRACECA region are a grossly underutilised resource that can and should be utilised for the improvement of road safety and for the development of future road safety specialist to meet the future needs of the countries. At present almost no research is undertaken on road safety issues in universities, academics have little or no knowledge of road safety issues and do not see that they could have an important catalyst role in bringing international road safety knowledge and best practices to their countries. Students are given only a very cursory overview of road safety issues.

Action taken to encourage sustainability in this area. The project team organised for academics from Belgrade university to visit each country to have discussions with groups of academics from the main universities and research institutes to introduce them to road safety issues, to show them how in Serbia, the academics led the major reforms to improve road safety. The project team tried to encourage them to introduce road safety lectures into their final year courses in relevant subjects and to consider doing simple research projects such surveying %age wearing seatbelts in front and rear seats and % age exceeding speed limits in urban and rural roads. Such

basic information can be used in monitoring effectiveness of police activity and in targeting those locations which have higher risk factors. This work was initiated but had to be left unfinished as the project came to an end.

3 **Capacity building in safety engineering.** since all 19,000 deaths and all 200,000 injuries per year that happen in this region, happen on the road networks, and many of these roads have serious road safety deficiencies, this was a very important component within the project. There is a significant lack of road safety knowledge and expertise in this area. In addition, existing practices and systems are in some cases inhibiting application of road safety improvements. The project team made particular efforts to maximise the chances developing the right conditions for sustainability in this area.

Action taken to encourage sustainability in this area. Apart from running a large number of regional, sub regional and country specific workshops to train local engineers in Safety engineering, Tunnel Safety Blackspot Management programmes, Road Safety Audits, Safety in Design, Freight Routing and Parking etc. the project prepared a number of manuals and guidelines on key topics to provide a written source of reference. These were brought into use during training courses in the project so that local engineers could use them and provide comment on usefulness and relevance to their needs. The final versions were translated into Russian for download from TRACECA website and these are described in section 2.3.1. The fact that 2 of the project trained and project certified road safety auditors are now already working (one outside his own country) as full members of international teams of consultants on development bank funded road safety projects is vindication of the efficacy of the capacity development approach adopted by the project team.

4 **Coordination of activities in donor community in the region to maximise synergies.** There are a number of different development banks, bilateral donor agencies and EU Delegations active in the region and different banks have differing levels of engagement in different countries (e.g. ADB is the biggest lender in Armenia but the World Bank is the biggest lender in Kazakhstan, EIB and EBRD are mainly active in Ukraine and the Caucasus, EU Delegations are active in all the countries).
Although there are periodic donor coordination meetings within each country there was no overall picture of who was doing what across the region and because there were no road safety specialists in any of these local offices of banks and donors, there was no consistent or common understanding of the road safety issues or opportunities in each country or across the region. As a consequence, any safety activity that was done in the past tended to be sporadic, infrequent, discontinuous and uncoordinated and often leading to duplication in neighbouring countries or even on occasion by different IFIs in the same country .

Action taken to encourage sustainability. At project commencement the project team made a point of visiting the most active development banks (usually World Bank and ADB but also EIB and EBRD where they were active) plus the EU Delegation in every country on the initial visit by the management team to inform them about the project and to gather information on their activities affecting road safety. From these discussions and via the team leader's contacts at the Headquarters of each of the development banks, it was possible to map out the current and proposed road safety activities across the region by each of the lending and donor agencies. This consolidated mapping of information was included as an annotated diagram in the Inception report. (Interestingly many of the development bank resident missions were particularly appreciative of the mapping exercise as no one had ever done such task before to show in one place, as an overview, who was doing what and what was happening across the region) The project team continued to visit bank offices and the EU Delegation on every trip to a country to keep them informed of activities and to invite them to participate if they wished in any workshops or training activities being done in their countries.

As a result the project team built up a very good relationships with the lenders and donors in each country and were able to get them to include safety activities and to support road safety in areas of direct benefit to the project beneficiaries (e.g. the EIB with advice from the project, funded a euro 1.5 million grant funded project in Ukraine to support further development of road safety audit, the ADB in Armenia assisted the project to raise awareness / commitment of senior decision makers by financing an Armenian delegation led by Minister of Transport to go the 2nd Global ministerial

meeting in Brasilia on the Global road safety problem and made it a requirement of their next loan that Armenia finalise our project developed road safety action plan and have it adopted by government). In Kyrgyzstan, ADB co-financed the road safety audit workshop / training so that the numbers could be increased to enable additional design consultants and contractors from their road projects to attend. In Kazakhstan the World Bank sought our advice on what to include in the substantial ($multi million) road safety component they intend to include in their next World Bank infrastructure loan. In Tajikistan and Ukraine, the project team have been asked to comment on the proposed road safety components in forthcoming loans of the development banks. In Ukraine, the project team were invited to the Ukraine Transport Donor meeting to give their views on the most urgent needs in Ukraine.

All formal project documents have always been placed on the TRACECA website for download by stakeholders and any others such as donors and lenders interested in the project. These documents however do not contain the detailed technical notes, reports and working documents that were developed by the 9 specialist sub-teams within the Project team working across 9 countries on different aspects of road safety within the project. In order to assist the individual stakeholder's organisations in each country, a copy of these documents which are specific to each country) have been compiled and provided on CDs to each member of the 6-member multi sector country delegations who attended the end of project closing event in Tbilisi. In addition, copies of the same country specific documents (with our specialist's reviews and recommendations in each sector plus lists of key contacts etc.) have been provided to each of the development banks and the EU delegations in each country so that all key groups addressing road safety have the same detailed information on what has already been done in that country, who the key persons are in each key stakeholder in each sector and what were the findings and recommendations in that sector. This will avoid the need for any new consultants hired by government, donors or lenders to "re-invent the wheel" and they can instead concentrate on more productive activity to build on what has already been done in order to move road safety forward in that country.

5.3 Possible follow up activities and next steps to help the region

As chapter 4 demonstrates unequivocally, this particular EU funded project has been successful in delivering impacts and some very significant improvements have already occurred (e.g. capacity building in safety engineering) or have been initiated (e.g. legislation going through Parliament in Ukraine and Kazakhstan and Prime Ministerial decree in Armenia). However, if improvements are to be consolidated and to continue, effective ways must be found to maintain momentum and continuity in some way so that the progress achieved to date does not start to erode. Unfortunately, it is a sad characteristic of such technical assistance projects that there can be a significant time lag between one phase of a project being completed and the next follow on phase commencing. This gap can often be 1-2 years and during such delays, all the efforts applied and hard won gains achieved in the earlier project can become eroded or even totally lost. Individuals may move on, supportive leaderships of organisations who have been persuaded to support road safety may change and the momentum, built up at great cost and with such great effort and commitment in an earlier project can be lost and everything may have to start again from scratch.

Some TRACECA beneficiary countries (e.g. Armenia and Kyrgyzstan) and their key beneficiary stakeholders, even after official finish of the project, have continued to request further assistance and support from the management team within the project to come and make presentations to help persuade their highest level political leaders on National Road Safety Commissions (often chaired by Prime Minister or Deputy Prime Ministers) and to get their high level "buy in" for road safety. The team have had to refuse such requests. This however shows there is a continuing demand and appetite for such assistance and that senior officials in key stakeholder organisations feel it helpful to have such external validation of needs from the project team in order to persuade their highest political leaders of the need to do more on road safety.

In order to maintain momentum and to continue development of road safety we would recommend the following activities be considered. Relatively low cost activities that should be considered by hiring individuals or an organisation to maintain momentum in road safety until larger regional or sub regional safety projects, can include:

1. **Provision of additional input and assistance to Ukraine in Management Coordination and Funding of road safety and development of road safety at Municipal level**
   Very significant progress has been made Ukraine in moving things forward. A Parliamentary subcommittee on road safety now exists and it has been assisted by the Project to develop road safety legislation that is now drafted and tabled in Parliament and will hopefully be passed in the next few months. This establishes a new National road safety agency and makes provision for safety funding. For these to be able to work, procedures and regulations will need to be devised for the new agency, for funding mechanisms and the work of the secretariat. In addition, under current reforms in Ukraine there will be devolution of many functions including roads to local government, so it is essential to ensure that Municipalities do more on road safety in urban areas where about 50 % of the road deaths occur. The best would be to provide further technical assistance to Ukraine in management, coordination and funding of road safety at national and local level. This also strongly supports EU efforts to assist Ukraine in socio economic development by reducing the 4500 deaths, 30000+ injuries and $4.4 billion economic losses being incurred annually by the country. This is recommended as the highest priority as it is the country with by far the biggest number of deaths and consequently with the biggest potential for reduction now that the organisational structures are being put in place. It also supports the various other EU efforts to assist Ukraine to address it various socio –economic problems.

2. **Regular benchmarking to ensure progress being maintained**. Organise 2-day visits to each of the 9 TRACECA countries at 6 monthly intervals to undertake benchmarking of the same performance indicators to check if road safety is continuing to improve.

3. **Fund a 1-week regional workshop / training course for academics from the region** to introduce them to safety teaching modules for inclusion into university courses, to teach safety research methods and how to calculate costs of road crashes and assist them to do the initial safety performance indicator surveys - e.g. %age wearing seatbelts front and rear seats (urban and rural) and %age exceeding posted speed limits by 10kph, 20 kph and 30 kph (urban and rural) and %age drivers having had alcohol). The academics in each country could then be assisted/ mentored to do research projects and to do 6 monthly surveys of safety performance indicators and to publish such results to build up a framework of knowledge to help policy makers make better decisions.

4. **Regional crash data base** Assistance in establishing a regional crash data base to allow countries to compare themselves against others and against regional averages. Most countries have indicated willingness to provide basic non confidential data for this purpose. A decision needs to be taken as to where it could be held.

5. **Further strengthening of safety engineering capacity building** by assisting countries in establishment of regular local Blackspot Management and Safety audit training courses in each country (under the aegis of Society of Engineers or other similar official body) as well as implementation of pilot blackspot improvements and safety audits to give practical training opportunities to local engineers in each country.

6. **Persuading Political Leaders to support road safety.** Continue making regular 1-2 day visits to countries to make presentations to National Road Safety Commissions (usually chaired by Prime Minister or Deputy Prime Minister) to raise awareness and commitment of highest political levels in each country and to discuss and help develop appropriate management coordination and funding structures for each country that could be used to have more effective road safety activities. This would include advice on the necessary road safety legislation to create the right environment for road safety to develop.

7. **Assisting 3 countries in reintroducing technical vehicle inspections for private cars.** There are three countries that for various reasons have discontinued doing technical inspections of vehicles and they need assistance in developing and implementing the road map to re-introduce such inspections and the necessary controls to avoid the corruption problems that led to the inspections being discontinued. The project has already been advising relevant private sector organisations and government agencies on how best to re-introduce such activity and further advice would be useful as the re-introduction date gets closer.

8. **Assisting countries to monitor implementation of their 3-year Priority actions**. This project has assisted each country to develop draft 3-year immediate action plans (Jan 2015-Dec 2017) but although considerable impact has been achieved in some countries most are just starting the process of identifying and removing impediments to safety improvement. The project team are confident that if the 3-year action plan in each country is implemented as designed, the TRACECA countries will have significantly improved their capacity to manage, coordinate and finance road safety activity. Countries should be assisted to establish an effective monitoring system to monitor implementation of their action plans so they have effective implementation and the developmental impact that is required to move road safety forward.

9. **The need to address urban road safety.** Most governments in the TRACECA region are in their first phase of road safety management and capacity building at their National level. This is a good and necessary first step towards improvement of the road safety system. However, road safety problems cannot be solved at National level alone and the next necessary step is to get road safety activity also happening at local level, in local communities (municipalities). Some research from the region suggests that in some countries around 60% or casualties happen in urban areas and of these, typically 40% or more, happen in the Capital city and of these around 40-50% of the deaths are pedestrians- in many cases young children on route to and from schools. Thus the next step, of safety development in the region needs to provide support and help to Municipalities to start addressing the road safety problems in a systematic way. The Capital city in each country can be used as a "demonstration" (Pilot Project) to get the Mayor and his administration mobilised/persuaded to start looking at road safety in their jurisdiction. Also, the mayor and senior transport person and head of traffic police from each city from the 4 or 5 of the biggest cities in the country could be invited to the Capital city to participate in the 2-3-day workshop on urban safety issues and to see how a city level road safety action plan can be developed that addresses the city level issues while supporting the national level action plan. Similar 2 day follow up workshops could then be held later in each city to help develop local action plans for each city (it might be interesting to note that Serbia which reduced deaths by 57% over a 14 year period has about 185 local municipalities and **all of them** have their own individual road safety action plans to address road safety at local level in support of the National road safety action plan. This was undoubtedly one of the factors contributing to Serbian success.) Safety activity need to be moved down and stimulated at municipal level in TRACECA countries.

5.4 Concluding remarks and the way ahead

This final report has tried to give a brief overview of the activities undertaken and the main achievements of this 26-month project**.** All detailed documents referred to in the text are included in the accompanying CD if reading this in hard copy version. or are hyperlinked if it is the electronic version. For each of the 9 countries, around 22 additional country specific internal working papers, technical notes and reports by sector specialists on the project team have been provided to the key beneficiary stakeholders in each country and to the local offices of development banks and EU Delegations.

A number of manuals/ guidelines have also been produced and an estimated 700 + persons have participated in workshops, meetings or training courses and have been introduced to best international practices in each of the sectors addressed by this project. Around 70 have received specialised training in safety engineering and 20 received further intensive training and are now

certified as road safety auditors. They have all been trained to a consistent level and are already being used by development banks as a locally available as cross border resource to ensure new roads are being built to be safer.

Significant progress has also been made in terms of institutional development and capacity building.

Despite such success by the project, much remains to be done if road safety activities are to be embedded into the normal activities of the key stakeholders in the countries of the region.

Efforts were initiated during the project to try to “institutionalise” road safety so that appropriate activities could be stimulated and the right sort of conducive environment created to let road safety develop and grow. However only a limited amount of such activity was possible during the project, much more of such efforts are still needed as outlined in section 5.3 above.

The project team would strongly recommend to maintain activities and momentum on road safety in the region. In terms of priorities, further assistance to Ukraine should be the highest priority for EU as it has the biggest scope for significant impact and very high returns. The reforms now underway in Ukraine with the previous GAI National police being replaced in urban areas by the a new patrol police (who do little or no safety work and in some cases do not even collect crash data) and devolution of many other responsibilities to municipalities including management of urban roads means road safety will deteriorate further unless municipalities are required and assisted to develop capacity to address road safety. A little bit additional effort now may just be enough to make a huge difference to capability of the country to continue addressing its serious road safety problems more effectively and to reduce its huge annual human and economic losses – many of which are avoidable if the correct action can be taken and appropriate systems established.

Annex A. Content of CD

Component 1

- Benchmarking

Component 2

- Management
- NAPs
- Crash Data Systems
- UN Conventions and EU Agreements
- RS Implementation and Trainings

Component 3

- Safer Roads
- Freight Routes and Parking
- Safer Vehicles

Component 4

- Press Releases
- Closing Event

Annexes

Annex B. Work Plan and Staff Schedule

On the next page we have presented the schedules as implemented within the project period.

Annex B - WORK PLAN AND STAFF SCHEDULES

TRACECA ROAD SAFETY II

Implementation of the Regional Road Safety Action Plan for the Neighbourhood East and Central Asia

2014 | 2015 | 2016

Calendar weeks / Project weeks

WORK PLAN - Activities and sub-activities

Inception phase (2 months) - COMPONENT A (Inception activities)

- **A.1 Review/establishment of possible project offices**
  - A.1.1 Introductory meetings (EC/consortia/key experts)
  - A.1.2 Administrative issues and logistics (ISO 9001 st. and PM procedures, checklists, ...)
- **A.2 Identification of potential local support staff**
- **A.3 Mobilisation of the project team**
  - A.3.1 Planning/logistics/letters out to funders, countries, Traceca Secretariat / visas
  - A.3.2 Recruit staff / set up project office in Kiev + liaise with other TRACECA projects
  - A.3.2 TRACECA Secretariat engagement/liaison visit
- **A.4 Country visits for initial meetings (see attached below)**
  - A.4.1 Develop or update main Road Safety Stakeholders map
- **A.5 Collection and processing of basic information on progress to date**
  - A.5.1 Distribution during visits of survey questionnaires to TRACECA countries
  - A.5.2 Initial analysis of current situation, needs and impediments
- **A.6 Gap analysis of ToR assumptions and actual situation in the field**
- **A.7 Exploration of possible options for Project Steering Committee if needed**
- **A.8 Development of revised project implementation plan**
  - A.8.1 Development of Training and Institutional strengthening plan
  - A.8.2 Preparation a short Inception Report

Implementation phase (21 months)

COMPONENT 1: Inclusion of Turkmenistan in the TRACECA Regional Road Safety Action Plan

- **1.1 Inform and mobilise**
  - 1.1.1 Job descriptons and selection of individual experts for project tasks
  - 1.1.1 National visits to arrange downstream inclusion activity /initial assessments
  - 1.1.2 Awareness Raising, assessment and action plan workshop
  - 1.1.3 Stakeholder identification / mobilisation for assessment and action plan workshops
- **1.2 Assessment Rating**
  - 1.2.1 Analysis of data
  - 1.2.2 Assessment rating for Turkmenistan (based on discussions with stakeholders)
  - 1.2.3 Road Map (action plan) of priority activities for Turkmenistan to join TRACECA countries

Component had to be deleted with EU approval due to non response of Turkmenistan

COMPONENT 2: Regulatory and institutional reforms

- **2.1 TA and training**
  - 2.1.1 Sub -Regional awareness raising workshops- inputs to 3 GRSP workshops
  - 2.1.2 Planning and implementation of National Action Planning Workshop in country - 10 countries
  - 2.1.3 Planning and implementation of EU/ECE agreements + conventions regional workshop
  - 2.1.4 Implementation support for Agreements and conventions incl national workshops
  - 2.1.5 Review of current crash data systems and analyses
  - 2.1.6 Recommendations for improvement of country crash databases/data analysis
  - 2.1.7 Workshop + Recommendations on a centralised crash database (RS Observatory)
  - 2.1.8 Identifying of researchers for accident costing studies on national level
  - 2.1.9 Training workshop for researchers
  - 2.1.10 Accident costing studies and mentoring of researchers
  - 2.1.11 Speciaalised training of of multisector coordination expert groups in each country
- **2.2 Study tours and UNECE working groups**
  - 2.2.1 Planning and implementation of Study tour of good practice countries (Serbia)
  - 2.2.2 Participation in 4 UNECE working groups (cancelled due to language problems of possible participants)
- **2.3 Position papers, guidelines, policy & background docs (as and when needed)**

COMPONENT 3: Safer infrastructure and vehicles

- **3.1 Safer infrastructure**
  - 3.1.1 Review and enhance safety engineering aspects of road design standards
  - 3.1.2 Training on safety elements of road design, construction and maintenance
  - 3.1.3 Introduction to EU Directive on safety in road tunnels
  - 3.1.4 Prepare sample templates on Road Safety Audit policies/legislation
  - 3.1.5 Implement regional "train the trainer" road safety audit courses including black spot management
  - 3.1.6 Support the implementation of " in country" road safety audit training courses
  - 3.1.7 Support programes on road safety audits, black spot management and inspection
  - 3.1.8 Prepare guidance on freight/through traffic routing to avoid residental areas
  - 3.1.9 Support development of pilot routes schemes as examples
  - 3.1.10 Promotion of pilot case studies and sharing of best practice
- **3.2 Safer vehicles**
  - 3.2.1 Training on international best practices for technical inspection of vehicles
  - 3.2.2 Training on international recognised motor vehicle safety regulations/standards

COMPONENT 4: Communication and visibility

- **4.1 Elaboration of projects Communication strategy**
- **4.2 Communication/visability activities (website, logos, publications, press articles)**

Final Phase (1 months) - COMPONENT B (Project finalisation activities)

- **B.1 Visibility events (in country wrap-up meetings plus a regional event)**
- **B.2 Final Report**

Reporting

- Inception Report
- Benchmarking report
- Interim reports
- Draft Final Report
- Final Report

STAFF SCHEDULES

Project Experts

	TOT. MD
Team Leader Dr Alan Ross (300 MD)	414.7
KE2 - Roads Dr Dejan Jovanov (200 MD)	307.5
STE 1-1: Action Planning Workshop Specialist	6
STE1-2: Road Safety Expert	18.5
STE 2-1: Road Safety Expert / STE2-2: Action planning workshops expert	28
STE 3-1: Road Safety Seminars and Training expert	43
STE 3-2: Road Safety Seminars and Training expert	10
STE 3-3: Road Safety Seminars and Training expert	20
STE 3-4: Road Safety Seminars and Training expert	20
STE 4-1: EU/ECE agreements + conventions expert	6
STE 4-2: ADR Expert	5
STE 4-3: Vehicles Regulations Expert	20
STE 4-5: AETR Expert	17
STE 9-1 Safety Engineer I (design standards) Expert (40 MD)	77
STE 9-2 Safety Engineer I (design standards) Expert (10 MD)	10.5
STE 10: Safety Engineer II (black spot) Expert (10 MD)	10
STE 11: Safety Engineer III (tunnel safety) Expert (15 MD)	15
STE 12-1: Road Safety Auditor Expert (50 MD)	40.5
STE 12-2: Road Safety Auditor Expert (10 MD)	10
STE 13: Freight/through traffic routing Expert (20 MD)	11
STE 14: Technical inspection of vehicles Expert / STE 15: Motor vehicle safety reg/stds	75
Sub total non key senior experts 1000 MD	442.5
JTE 18: Regional project coordinator (400 MD)	430.5
JTE 19: National coordinators (average 2-3 days/ month x 19 months x 9 countries)	320
STE 6: Crash data system	50
Design Standards and Sketches/Layouts Expert	5
STE 7: Crash data system (GIS) one expert (15 MD)	29
Sub total junior experts 800 MD	834.5

Back up Management and Support staff

- Anastasia Kovalenko (secretary /administration assistant)
- Joanna Tallec, Project Manager, Safege
- Olivier Montagnes, Project Manager, Safege
- Tim Jakeman, Senior Technical Advisor, IMC Worldwide

LEGEND

- Deliverable/Report
- Activity
- Intermittent activity and preparatory within defined time
- Project start and end
- Calendar months
- x Deliverable intermediate report
- 1 Activity 1, 2 or 3 in safety engineering
- 20 Number of days used in that month

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