Improving Road Safety:
The Role of LRAs

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List of abbreviations

CSR	Casualty and Severity Reduction
ETC	European Territorial Cooperation
LFA	Less Favoured Areas
LRA	Local and regional authorities
RS	Road Safety
RSA	Road Safety Audits
RSE	Road Safety Education
RSM	Road Safety Management
WHO	World Health Organisation

1. Introduction

1.1 Objectives of the Study

Road safety should be understood as a comprehensive task which includes a broad range of measures. Investment in construction, road and traffic engineering for increased safety is just one part of it. In fact road safety measures should be a combination of the 3 E's: **E**nforcement, **E**ngineering[1] and **E**ducation. In a model approach[2] a fourth E has been added: **E**ncouragement – for the community to take on board its role in the prevention of casualties. With relation to education and campaigns a sustained approach towards awareness-raising and change of attitudes is at least as important as the 'repair work' on existing roads or a prudent and effective safety management when it comes to construction of new roads. This includes actions such as Road Safety Education (RSE) training for parents, RSE curricula for primary and secondary schools, campaigns and films addressing adolescent drivers (as a prominent risk group).

The diversity of possible actions which contribute to increased RS is enormous. For many types of actions LRAs have to be considered key players, in particular infrastructure is a dominant area where intervention at local level in favour of vulnerable road users such as pedestrians and cyclists is vital. However, there are some important intervention areas which are – generally speaking – of limited interest for LRAs since their impact on such policies is limited. Such areas include for example vehicle safety (which is more subject to European and global standards), driver education and testing (which is mostly in the hands of national legislation), statistics (again mostly in the control of national institutions).

1.2 Local and regional action is crucial

Obviously the role of local and regional authorities (LRAs) in road safety is significant:

- actions such as mitigation of road design take place within the territory of local authorities; major parts of the road network in the EU can be classified as local and regional roads thus it is part of local and regional competencies; more than 50% of fatalities occur on rural or secondary roads.[3]

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[1] In this report the term *Engineering* will be summarised under the broader notion of *Infrastructure* which comprises a broad range of potential measures (see also section 3).
[2] Essex Road Safety Strategy which is presented in section 4 on good practice.
[3] Cf. European Union Road Federation (ERF), Road Safety Action Programme 2011-2020 – ERF Position Paper; Brussels 2010.

■ When it comes to enforcement in practically all countries across the EU police forces have local and regional divisions.

■ RSE should start at primary school which is again – in the majority of Member States – a local issue and RSE should continue throughout secondary school which is quite frequently in the hands of regional authorities.

■ Focusing on the urban dimension, the EU underpins in its action plan for urban mobility[4] that the responsibility for urban mobility policies lies primarily with local, regional and national authorities.

The following table illustrates that institutions at all levels i.e. local, regional, national and EU, could or actually play an important role for all types of measures.

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[4] Action Plan on Urban Mobility, Communication of the Commission, COM(2009)490

Table 1. Examples for the involvement of LRAs in road safety management

Type of action	Institutions – geographic/administrative dimension			
	Local	Regional	National	EU
Infrastructure (road design)	E.g. home zones – participatory planning and local acceptance is crucial for speed breakers or cyclist infrastructure	Safe design of intersections for secondary roads (e.g. roundabouts) or Support schemes for local action according to coherent ranking of black spots	E.g. legislation (norms) for road engineering or road safety audits on highways or Safety in tunnels or Standards for road markings and signs	E.g. similar standards for road safety audits; or Supporting the harmonisation of protection levels, installation and maintenance standards for road restraint systems (safety barriers)
Control and enforcement	Crucial role of police at local and regional level		Enforcement standards	Harmonisation of enforcement standards
Education	Support of RSE for children by local police and municipalities	Regional preventive actions for adolescents together with regional schools	Curricula for RSE in primary and secondary schools	Support to projects and networks on exchange of good practice
Campaigns	Local action days on bike safety	Campaigns in regional/national media (e.g. at start of school season)		Financial incentives for campaigns and support exchange on successful examples (e.g. Bob)
Emergency and post-injury services	E.g. voluntary fire brigades organised at local level in many countries	E.g. emergency services organised at regional level	Financing of emergency services through health insurance systems	Setting standards or supporting development of cross-border catchment areas for emergency services
Statistics and data analysis	Collection of accident data	Training of local police officers in order to safeguard common standards or Black spot mapping	Data collection and summary for policy-makers; setting standards	Harmonisation of standards for data collection and interpretation; link to global networks

Source: own considerations

This brief outline illustrates the basic types of action points immediately required within multi-level governance. Measures at local level will only be effective if such approaches are embedded in sound policy frameworks at regional and national level: therefore financial incentives have a crucial role. Benchmarking and exchange at European level will support the introduction of innovative actions.

The Road Safety Action Programme 2011-2020 speaks of the **establishment of a structured and coherent cooperation framework which draws on best practices across the Member States** as a major pre-condition for the implementation of the Programme. In particular two objectives address joint action involving LRAs:

- **Safer road infrastructure***;* which implies an objective of expanding, in a systematic process, higher safety standards and auditing procedures, following the principles of the European Road Safety Directive to secondary roads.

- **Protection of vulnerable road users***,* in particular cyclists or elderly and disabled persons is to a large extent a local traffic management issue thus addressing local authorities.

2. Institutions and competences in Road Safety

2.1 Overview of Road Safety policy delivery systems

From visions and strategies to efficient and effective solutions on the ground:

The set-up of policy delivery systems is significant

Road safety management as a policy delivery system is seldom, in itself, a research topic. Thus few coherent and fully comparable descriptions of road safety management systems are available for all Member States. For some countries, in particular for Northern Europe, ample research has been done but for other countries this process is now about to begin.[5]

However, a sound and efficient transfer of experiences and good practices also requires an understanding of the differences in the policy delivery systems in the Member States.

Measures with a direct impact on accidents and injury figures are often evaluated without due attention to the necessary conditions for implementing them and to actual implementation processes. Road safety management measures are largely based on empirical evidence and needs, which differ from country to country according to the political and administrative situation.[6]

One has to be aware that the policy delivery systems rank among the key challenges for road safety management: OECD[7] has evaluated the progress of all member countries in reducing the numbers of fatalities in road accidents. Surveys in 39 countries have analysed in which areas there is most need for improvements. A lack of political will and coordination has been identified as one of the key road safety problems.

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[5] E.g. DG TREN has invested in a large scale study which included among other areas a country survey for EU 27 on the institutional organisations for road safety (SUPREME: Summary and Publication of Best Practices in the Member States, results published in 2007). Among road safety experts e.g. the so-called **SUN**-countries(**S**weden, **U**nited Kingdom, **and N**etherlands) stand out when it comes to tradition, research work and approaches in road safety.

[6] SUPREME, Thematic Report on Institutional Organisation of Road Safety, Brussels, 2007.

[7] OECD, Working Group on Achieving Ambitious Road Safety Targets. Country surveys on road safety performance. July 2006.

In this brief review we will discuss key features of road safety management systems along with the major elements of a policy delivery system. The ideal policy delivery system consists of several elements:

- A **plan or strategy** which defines priorities; those priorities should be based on experience and know-how as regards efficiency and effectiveness; the plan or strategy could be made more visible by a vision (since compared to a rather detailed strategy a vision can be based on a crisp and easily understood policy aim in order to support public awareness and acceptance).

- An **institutional setting** which has the capacity and the competence to carry out the plan or the strategy. However, the key institutions involved should also have knowledge management capacities in particular for tailored know-how exchange and transfer and quality control mechanisms such as evaluation, impact assessment and efficiency analysis.

- **Budget allocations** for longer-term periods in order to allow for a systematic approach to road safety management and not just ad-hoc provision of grants for measures such as black-spot repair.

Visions, plans and strategies

The analysis of the WHO[8] draws the broadest conclusions in stating that road safety is a multi-sector issue for which the public health and transport sectors are equally responsible; moreover, road safety is also an issue of social equity.

The most prominent example of a vision based on a plan is the Swedish **Vision Zero** which was voted for in Parliament. Most countries that have chosen Vision Zero as the basis for their road safety policies or strategies have chosen either to modify the Vision in order to make it less rigorous and to avoid goal conflicts, or by deriving realistic goals which are coordinated with other types of goals. One example of a vision may help to understand the nature of such documents:

- The **Dutch Concept of Sustainable Road Safety** is based on the idea that a sustainable safe road system should prevent accidents and, if they do occur, the consequences are to be as small as possible. Principles for the design of the traffic system are functionality, homogeneity, and predictability. Measures derived from the vision focus mainly on infrastructure, vehicles, and education. For the implementation of Sustainable Safety, a start-up programme and a plan which focuses on decentralisation of road safety

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[8] World Health Organisation (WHO). World Report on Road Traffic Injury Prevention. Geneva, 2004.

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policies have been implemented (the process is ongoing since 1990; major impetus has been the start-up programme in the period from 1997 to 2002).

A lot of countries are regularly developing road safety action programmes on a longer-term basis at the national level (e.g. AT, FI, PL, SE, UK). Depending on the level of administrative decentralisation in the Member States many countries also elaborate and implement strategies at regional – and in some cases also at local level. The following examples may help to understand the rationale of these documents:

■ Danish National Action Plan for Road Safety: The objective is to reduce fatalities and seriously injured by 40% from 2001-2012. The plan contains 62 measures which are related to speeding, alcohol, cyclists, and junctions (these factors contribute to approx. 85% of all Danish road accidents); measures are regularly subject to evaluation

■ United Kingdom: the road safety strategy set at national level clearly has stated aims and goals. At county level a wealth of examples for medium-term road safety strategies exist.[9] At the local level the responsibility for achieving the aims lies with local government. Local councils are required to develop a five year local transport plan, which should include their proposed strategies for achieving the set aims and goals.

Institutions

In most countries institutions at the national level play the key role in defining policies and providing financial allocations for implementation of road safety management. Ministries for Transport and/or national road administrations have major tasks in the institutional setting since these bodies:

■ are in charge of parts of the road network or are in charge of some aspects for the complete road network

■ but even more importantly, these bodies often make decisions about financing and maintenance of national roads, as well as about budgets for regional and local roads

In most countries where national road safety programmes or plans exist, the process of plan elaboration has been initiated and funded by the Ministries of Transport. But as road safety management is a multi-sectoral issue **coordination is crucial**.

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[9] The example of the road safety strategy for Essex is presented in section 4.

This refers to coordination:

- across administrative sectors with horizontal coordination, e.g. between the bodies which are in charge of infrastructure and enforcement within LRAs, and vertical coordination between national, regional and local levels

- between public and private actors.

Road safety councils or commissions at various levels play a vital role in the coordination and implementation of road safety management. A couple of examples might help to understand the diverse character of such councils:

- In the Netherlands, in the course of decentralisation of road safety management, Road Safety Councils have been established at provincial level. An important task of these councils is to promote and foster local road safety measures.

- In the United Kingdom the Department for Transport has established the Road Safety Advisory Panel which includes representatives of the main stakeholders (local authorities, police forces, voluntary groups and road user associations, motor manufacturers, individual road users - drivers, motorcyclists, cyclists and pedestrians). In certain counties Casualty Reduction Boards have been established at national level; for example in Essex a multi-agency task force comprising of representatives of the county council, police, fire and rescue services, the Highways Agency and the East of England Ambulance Service. The system is completed by local road safety partnerships (made up of local authority road safety officers, traffic police officers, and other stakeholders); these local authority-led partnerships carry out campaigns and training, particularly targeting young people.

- In *Germany* accident commissions at local level have been established as early as the 1960s. (See part 4 also for examples.)

For obvious reasons the crucial factor is the competence and the capacity of these Commissions to decide on the implementation of actions and measures. In the long run only those Commissions which achieve visible outcomes will motivate the members to get actively involved and thus to provide momentum in the process. Despite many successful examples in several countries this remains a fundamental challenge. In many countries the function of the road safety commissions at various levels is restricted to the proposal or the endorsement of guidelines or recommendations.

Another important aspect is the generation of know-how as well as its subsequent dissemination. In many Member States public or public equivalent **research institutes** (or in some cases even private institutes) act at national level as think tanks and partly also as lobbying institutions for road safety: such institutes with a focus on road safety exist for example in Finland, France, Hungary, Lithuania or Sweden.

The Austrian Road Safety Board, in a similar function, is part-financed on a private basis by the board of private insurance companies. Due to Austria's federal structure the Road Safety Board has regional branch offices which are in regular contact with Länder governments in order to develop and implement road safety projects. Insurance companies frequently act as sponsors for actions.

Road safety observatories have been established e.g. in Spain and France. These institutions assess trends and developments in road safety and point at fields with a need for action. Part of their work is also an analysis of the effectiveness of road safety programmes and strategies. E.g. the tasks of the Spanish observatory include accident data collection, a research programme, and the design and implementation of the national strategy.

Participation of and cooperation with the private sector is an increasingly important aspect of road safety management. Examples of private sector participation, mostly in sponsoring, take various forms, such as:

- sponsoring institutions which are active in road safety (e.g. from insurance companies)

- sponsoring RSE activities (e.g. from automotive associations)

- campaigns or awards by automotive industries or other industries (e.g. producers of supply goods for road markings)

- sponsoring of roundabouts (local or regional companies as an approach to marketing and corporate responsibility)

It is quite obvious that a comprehensive approach to road safety management depends to a large extent on an active role of public bodies: visible responsibility of actors in public sector will motivate the private sector to partake in actions.

In this broad-brush picture of the institutional setting for road safety management the role of LRAs has not yet been discussed in detail. But for evident reasons the role of LRAs correlates to the degree of administrative

decentralisation across the EU: in strongly decentralised countries, such as Austria, Germany and the United Kingdom, the regional and local levels utilise a broader range of policy levers compared to other, more centralised countries.

Budget allocation for road safety

When it comes to budgets it is – even for experts – not easy to give account of budgets spent for road safety management at national level. Due to its multi-sector character, investment in road safety competes with other goals and the need for coverage of basic needs. Some examples might help to illustrate the challenge:

■ Targeted repair of black spots will compete with general road maintenance works.

■ Enforcement in favour of road safety with the general aim of combating crime.

■ RSE in primary and secondary school with all other subjects.

The major bottlenecks are:

■ Constraints in terms of budget, staff and time will prevail,

■ In the medium term public-sector budgets will be marked by austerity and the need for consolidation.

An increasing role of public-private partnerships could be one option for financing, but the public sector still has to provide incentives to raise interest of private players.

Two examples might be of interest since the mechanism of fund-raising is directly linked to the transport sector:

■ The Belgian Road Safety Fund is a fund generated from fines for traffic offences and is used to finance enforcement actions at national, regional and local level. The fund has led to improved and increased enforcement activities for types of traffic behaviour that are known to contribute to severe accidents. Activities are based on action plans, and the quality and effectiveness of these plans must be evaluated.

■ The Austrian Road Safety Fund is generated from the fees for customised license plates (also known as vanity plates) and is used for all kinds of road

safety projects; decision on the projects is taken by a committee. An added-value of the Fund is also that fund management is an anchor point for coordination between national and regional levels.

Funds for road safety actions are not, in most countries, a prime subject of public policy debates. A key aspect deserving particular attention is the fact that allocation to measures should be transparent, i.e. based on transparent and understandable criteria of efficiency and effectiveness. E.g. in the United Kingdom funding is provided on a yearly basis by central Government based on the previous performance of Councils and the quality of their future plans.

2.2 Need for further investment into sound road safety policy delivery systems

The short survey on road safety management systems in the EU points at deeply rooted challenges in road safety management.

Referring to our initial consideration of an ideal policy delivery system consisting of a mid- to long-term plan or strategy priorities, a clear-cut definition of an appropriate institutional setting and reasonable budget allocations, we have to conclude that fully developed and operational road safety management systems are rarely found across Europe. The "Thematic Report on Institutional Organisations of Road Safety" points out:

Most road safety plans and programmes are based on road safety visions and targets, but there are only few programmes which include precise definitions of responsibilities, which are linked to budgeting processes, and a system for quality assurance. Consequently, the most important barrier to the effectiveness of road safety plans and programmes is the lack of actual influence on road safety work.[10]

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[10] SUPREME, Thematic Report on Institutional Organisation of Road Safety, Brussels, 2007.

3. Contribution of LRAs to road safety policies

3.1 Main types of policies implemented at local and regional level

At local and regional level actions in road safety management concentrate on **infrastructure** (understood as a rather broad term), **road safety education** (RSE) and, to some degree, **enforcement**.

To some extent the list also represents a ranking; in infrastructure LRAs do have a broad range of duties and competences but also a major role in planning. In RSE the room for manoeuvre would be quite considerable though it is not being used often, and in the case of enforcement LRAs execute activities according to legislation decided at national level. In this section the following aspects will be highlighted: The **role** of LRAs in each of these intervention areas, **major challenges** for LRAs and some reflections on ways to **improve the policy delivery** of LRAs in Road Safety Management (RSM).

Infrastructure

Land-use planning is in the hands of LRAs

Safety management starts with infrastructure planning: land use and zoning plans are significant since to some extent they determine the traffic volumes, the location of infrastructure such as primary schools or kindergartens, shops, green zones etc. (e.g. in Vienna (AT) a small residential area has been designed as car-free and has been met with considerable interest).

An advanced approach to planning in the urban environment takes a comprehensive approach. Social aspects do become increasingly important. For example, studies in the United Kingdom have shown that the accident risk in socially deprived areas is much higher.

LRAs are in charge of construction and design and maintenance for major parts of the road network

Construction and design of roads is a major aspect of road safety: This includes intersection geometry, design of cycle paths, road marking and alterations such as speed humps. The tendency in advanced planning is to develop self explaining roads, i.e. roads which in particular promote safe speed of motorised

traffic and support a safe environment for vulnerable road users such as children and elderly pedestrians or cyclists (this is also being promoted under the slogan of shared space; the more such measures become part of area-wide concepts, the more sustainable the effects will be).

Another important aspect is the installation of forgiving roadsides in order to reduce accident severity; the location and design of off-road objects play a vital role. Audit and safety inspections might help to reduce risks.

Maintenance of roads in particular during winter months is a key aspect for safety; in particular LRAs in Less Favoured Areas (LFAs) face budgetary constraints which affect the quality of maintenance and road rehabilitation.

Road safety audits for existing roads is clearly a point which deserves more attention: mapping of black spots based on sound collection of accident data for regional road networks could help to set-up priority rankings for repair of dangerous intersections or stretches of road (as one of the key outcomes of network safety management).

Technical aspects of traffic management become increasingly important in urban areas

Traffic management systems (variable signing to announce congestion or accidents, adverse weather conditions etc.), speed cameras and section control become increasingly important as part of urban traffic management: these systems are aimed at improving road safety (such as speed control) and are tailored to support road safety management. To anchor road safety management as a horizontal aspect of urban traffic management remains a challenge: the issue of coordination is crucial. Different bodies may be in charge of urban expressways, local roads, or operators of large parking facilities and public transport: thus, comprehensive urban road safety management has to be based on a broad partnership involving all these actors.

Client-orientation and public awareness

Many cities demonstrate aspects of customer service and actively contribute to awareness-raising for road safety – in particular in the United Kingdom, county and local authorities provide a wealth of information on road safety via the internet.
Investment in public awareness for the acceptance of safer infrastructure is important to facilitate planning processes; car-driving is still charged with values. Lobbying and marketing for cars is often adverse to safety considerations. Here public opinion leaders have an important role to play.

Road Safety Education (RSE) and campaigns

The term infrastructure is fairly clear but RSE is quite often subject to a narrow interpretation. *RSE is the totality of measures, which aim at positively influencing traffic behaviour patterns.*[11] RSE should emphasise three pillars:

1. Promotion of knowledge and understanding of traffic rules and situations,

2. Improvement of skills through training and experience, and

3. Strengthening and/or changing attitudes towards risk awareness, personal safety and the safety of other road users.

Ideally education should reveal a balance between theoretical and practical elements, and the focus should be on building on knowledge, skills and attitudes. An advanced approach to the subject is currently promoting concepts for life-long RSE.

RSE at local and regional level needs facilitation, commitment and partnership

RSE is a crucial element for sustainable road safety management; in order to develop initiatives it is important to have dedicated facilitators available. An excellent example is the Local Road Safety Officers who are an institutional fixture at County Level in the United Kingdom and whose role is to support development of local road safety partnerships and to provide RSE for various age groups. The approach is rather unique across the EU, and although it might not be possible or feasible to transfer the model to other countries, the key lesson to be learned is that RSE at LRA level needs facilitation to develop partnerships and initiatives.

Depending on the size of the municipality, road safety partnerships at local level and regional level might take various forms: from cooperation of local administration, police, schools, driving schools, and fire brigades, to task forces for safe access to schools working at level of urban neighbourhoods, to broader partnerships at regional level. A well-functioning partnership is one of the key success factors for RSE: the more partners the more inputs in terms of resources, contents and aspects can be provided.

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[11] Böcher, W. (1995). Verkehrsaufklärung und Verkehrserziehung/Traffic Safety Campaigns and Traffic Safety Education. In Hilse, H.-G. & Schneider, W (Ed): Verkehrssicherheit. Handbuch zur Entwicklung von Konzepten/Traffic Safety. Manual for Development of Concepts. Stuttgart u.a.: Boorberg, pages 248-299.

Support from national and regional level is crucial to support initiatives at local level.

Campaigns at regional level need coordination and sponsors

Campaigns are usually an element of road safety work at national level; however in some regions targeted campaigns have been successfully implemented. The existence and coordination capacity of road safety councils or commissions is decisive for the effect and outreach of the campaign. Guidelines for effective campaign management include recommending a responsible key agency, a limited number of messages, decisions based on research and community support and a focus on fund-raising. Most examples of campaigns did rely on sponsoring from various public bodies such as ministries, private insurance companies, automotive associations etc.

Enforcement

Standards and guidelines are usually set at national level. Many factors to improve effectiveness of enforcement are dictated by national legislation, e.g. the effective use of camera enforcement, the tolerance levels for speed offences, or the variable and inconsistent enforcement practices nationally, internationally and between different policing bodies. Enforcement is also rarely subject to planning; for many countries, it can be noted, there is a lack of centralised and sufficiently detailed and structured data systems describing enforcement and surveillance activities. In terms of effective road safety management the four important areas for enforcement are drink driving, safety belts, speeding and young drivers – this pattern of major challenges has been consistent for decades.

Enforcement practice: LRAs are important actors

When it comes to enforcement practice the room for manoeuvre at level of LRAs is quite considerable. An outcome of a major study[12] illustrated the fact that administrative laws are not fully used in handling minor or even major offences; this is to some extent a question of political leadership but also of governance and public awareness.

Planning of enforcement activities at regional level can help to use staff resources more efficiently.

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[12] The GADGET project (4th Framework programme).

Examples in many countries have shown that gradual involvement of police in information and subsequent enforcement actions had very positive effects e.g. with the use of seat belts, in-car child restraint systems on the way to school, safe bicycles or measures to counteract speeding in residential areas. In order to be effective such actions do need cooperation and the inclusion of the police force in local or regional road safety partnerships.

3.2 Key challenges for a stronger role of LRA in road safety management

With a view to the potential role of LRAs in road safety key challenges which have to be considered are:

Availability of financial resources:

Financing road safety measures poses a particular challenge for local authorities in New Member States but will become a wide spread challenge across the EU given the fact that austere medium term budgets are to be expected.

Multi-level governance is essential:

In particular road safety management at local level will depend to a significant extent on the provision of resources from national and regional levels – be it trained staff, financial incentives, or favourable legislation. The success of road safety is most visible at the local level thus it deserves particular attention.

Awareness and local acceptance:

Next to a lack of financial resources, the lack of public awareness and consequently the challenge to gain local acceptance for more ambitious approaches is one of the major limitations for road safety management at local level; e.g. coherent RSE systems could help to strengthen awareness and acceptance of local infrastructure actions.

Access to technical know-how:

Know-how and exchange of innovative approaches: although not the crucial limiting factor it should also be considered since the technical know-how has to be made available in a user-friendly manner in order to attract the interest of regional politicians, mayors and local residents.

Local level – size matters

When looking at the local level it becomes obvious that the scope of problems but also the options in road safety management are far bigger for large cities and agglomerations than for medium-sized and small cities. Large cities are usually equipped with specific departments which are in charge of road safety or are equipped with coordination units. For small and medium-sized cities capacities for coordination and planning as well as to ensure access to the latest know-how are much more restricted. Problems peak in Less Favoured Areas where in many countries budgets are entirely dedicated to maintaining the status-quo or performing major repair works on public infrastructure. This poses a clear challenge for regional and national authorities to offer access to know-how, to trigger a minimum set of RSE activities and to provide budgets to run pilot schemes for the improvement of infrastructure.

Elements to improve policy delivery of LRAs in road safety

Well-founded strategies which involve LRAs

Guidance documents on road safety at national and EU level tend to neglect the role of LRAs; awareness of the fact that LRAs are key players in road safety management has to be strengthened in all guidance documents.

All administrative levels should be encouraged to establish strategies which are based on sound analysis of facts; in many countries this will require the training of facilitators to run the process of strategy development at LRA level. An important point is that the process of strategy formulation should also be understood as one policy lever to build, re-build or strengthen the local or regional road safety partnership.

In order to successfully involve local communities in road safety management the information and the issues must be presented in a way that is relevant to the local community.

A specific aspect is the development of sustainable urban mobility plans – such plans pose a considerable challenge since, as integrated policy approaches, coordination is essential in programming and implementation: road safety should be incorporated as a horizontal issue in such plans. Also further approaches of the EU in urban mobility should emphasise the need for comprehensive safety management across all urban transport modes as one vital element of sustainable urban mobility plans.

Awareness-raising, involvement of opinion leaders

Road safety is currently not an attractive policy item; attitudes and mind sets of political leaders at all levels are often ambiguous. New or different approaches to the topic will reinforce the interest of politicians in road safety management. One promising option to raise awareness could be the stronger involvement of the health sector in awareness-raising for road safety: the WHO proposed that the health sector takes a more proactive role and brings road traffic injuries back into its core business. The involvement of health sectors could be efficient for LRAs (e.g. cooperation with local or regional hospitals) over national government to EU-wide initiatives.

Increasing involvement of opinion leaders will also be a major incentive for the development of innovative public-private partnership schemes. Private actors will be more inclined to join safety initiatives if these initiatives are supported by renowned opinion leaders.

Budget and criteria for budget allocation

Financial incentives are crucial and should be linked to criteria pertaining to efficiency and effectiveness. In the Member States funds are mainly provided for implementation at local level but it should be recognised that the EU is also a significant investor in road infrastructure, particularly in the New Member States. Structural Funds provide significant amounts of funds for road construction and rehabilitation: safety could be embedded as a horizontal objective for road projects financed from Structural Funds. This would have an immediate effect on the visibility of the issue, the integration of RS considerations in the engineering process, know-how transfer, the development of capacities at all administrative levels etc.

Strengthen the policy rationale at all levels

A set of quantified goals that indicate inputs, outputs, and intended impacts of the policy interventions, is helpful to strengthen visibility of road safety. Furthermore this helps to enter into an honest debate about funding since it is impossible to define outcomes of interventions without corresponding information about inputs in terms of budgets.

One key problem is the lack of evaluation, i.e. impact assessment and efficiency analysis for road safety measures. There is very little evidence across Europe that road safety measures are subject to systematic evaluation. Finland, Sweden and some other countries in Northern Europe have already invested in this step. Evaluation should be part of the overall programme design. It is much easier to

reserve a small part of programme or intervention funds when designing and raising the funds instead of seeking ex-post for financial sources.

The Road Safety Observatory at EU level could seek to expand its function from data collection and development of joint standards for accident statistics to a knowledge hub for road safety management including guidance for evaluation and quality control.

Following the European Transport Safety Council (ETSC)[13] the EU could support the development of guidelines for promoting best practices in traffic calming measures based upon physical measures such as roundabouts, road narrowing, chicanes and road humps. These measures should be part of area-wide urban safety management approach; an important point would be to base the guidelines on facts underpinned by evidence-based impact assessment.

Models and institutions to anchor road safety management as a task at the local level

At the local level (as the smallest administrative entity) the development of road safety management can be a challenging task. Across Europe various ways to cement road safety at local level exist - be it the Local Road Safety Officers who work at county level providing guidance and support but also engage in education actions at local level, or be it the German example of the local accident commissions. It is paramount to develop, at national and regional levels, suitable frameworks to involve smaller municipalities in road safety management and define ways to disseminate know-how and ensure adequate standards in practice.

Urban areas are becoming laboratories for technological and organisational innovation, changing patterns of mobility and finding new funding solutions. Thus urban areas will increasingly become hubs for know-how on mobility issues. Networking and incentives at EU-level could help to share the experiences related to road safety (e.g. road safety management could also be covered in strategic projects under URBACT as the European Territorial Cooperation Programme for urban issues). At the same time it will be important to adjust the new know-how (stemming from tests of new solutions) to the needs of smaller municipalities.

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[13] European Transport Safety Council, Road Safety as a right and responsibility for all, Blueprint for the EU's 4th Road Safety Action Programme 2010-2020, Brussels 2008.

4. Good practices in road safety policies at local and regional level

This section presents good practice examples. It demonstrates that LRAs across the EU invest in various ways in road safety management. The range of examples should support the idea that action such as for example the construction of speed humps at local level should be understood as the outcome of prudent road safety policy and management and not necessarily is a target in itself. That is why this section emphasises approaches towards sustainable policy delivery next to practical examples of actions.

4.1 Example 1: Safe Communities

At the start a programmatic approach which has proven success in awareness-raising and implementation in lots of countries in the EU and across the globe is presented. The guiding principles for the designation of a safe community are the cornerstones for successful and prudent road safety management in particular at local level. In a limited number of Member States the key features of this approach are part of their policy delivery systems

Best practice in RS at local and regional level	
Name of the RS Action	Safe Communities
Type of action	Programme based approach which is a precondition to become accredited as Safe Community by the World Health Organisation (WHO)
Country and institutional level; LRA involved	Countries, regions, municipalities can apply following the six criteria for designation listed below.
Brief description of the action	Safe Communities is a World Health Organisation (WHO) endorsed approach that originated in Sweden in the 1970's and the formal approach began in 1989. A Safe Community can be a country, city, local government area or a district focused on safety promotion, injury, violence and suicide prevention, covering all age groups, genders and areas and is a part of an international network of accredited programs.
	Designation of Safe Communities
	To become a designated Safe Community, communities need to meet the following six WHO Safe Community Indicators which can provide a useful guide for community action to prevent injury/promote safety:
	1. An infrastructure based on partnership and collaborations, governed by a cross- sectional group that is responsible for

| | safety promotion in their community; |
| | 2. Long-term, sustainable programs covering both genders and all ages, environments, and situations; |

safety promotion in their community;

2. Long-term, sustainable programs covering both genders and all ages, environments, and situations;
3. Programs that target high-risk groups and environments, and programs that promote safety for vulnerable groups;
4. Programs that document the frequency and causes of injuries;
5. Evaluation measures to assess their programs, processes and the effects of change;
6. Ongoing participation in national and international Safe Communities networks.

However the Safe Community approach is more a process than a program and designation more a commitment to the ongoing process of becoming a Safe Community, than a statement of what the community has achieved at the time of designation.

It is important to note that for evident reasons practically all examples include the element of traffic safety.

Example of Lääne County

(region in Estonia, about 28,000 inhabitants)
The process to become a Safe Community was launched in 2007 and accreditation and membership was achieved in 2010. The process has led to a long County Strategy for the period 2007 to 2013. Under the umbrella of the Strategy several major programmes dealing with injury prevention and safety promotion have been developed and currently being implemented (responding to the second of the six criteria mentioned above).

The roadmap to become a Safe Community included also fund-raising initiatives drawing on various donors.

- In 2005-2006 a 3-year- trauma prevention program was developed for 2007-2009 that was financially supported by the Estonian Health Insurance Fund.
- Since the domestic resources of Lääne county government and other partners are not sufficient to cover all intended actions, an application for additional resources from and international donor was launched (Norwegian fund).

All programmes have detailed action plans and cover all ages and genders, environments and situations. Within each of the 'sector' programmes, smaller projects to promote safety have been initiated. Due to severe financial constraints in a first step the programme on traffic safety has concentrated on:
- Traffic-lessons at schools.
- Campaigns – No Car Day.
- Traffic Safety Curriculum in Haapsalu College

	Example of Třebon *(district town in Czech Republic; about 9,000 inhabitants)* As major strategic objective related to traffic safety, Třebon wants to invest into traffic calming and promotion of environmentally friendly traffic. Important partners of the initiatives in traffic at the local level are police, elementary school, driving school; at regional and national level the Traffic Research Centre based in Brno and the relevant department of the Czech Ministry of Transport are partners of the initiative. The local partners mentioned are also members of the Safety Council which guides the work along the programme. Examples of actions taken are: ▪ Children education to become safe cyclists; promotion of use of helmets in close cooperation with elementary school ▪ Playground for traffic safety education established in cooperation the local driving school ▪ Information of proper use of child restraint system at hospital during pregnancy and before leaving the hospital after birth ▪ Black spot mapping for the access ways to school in close cooperation between police and teachers ▪ Action day for drivers on speeding and consequences of speeding in terms of accident risks together with local police ▪ Combination of education at local driving school and targeted enforcement actions done by local police ▪ etc.
Role of LRA	*The safe community model aims to understand injury and intervene at a community level. By involving the community in finding its own solutions, it aims to be a catalyst for environmental, structural, sociological and political change that empowers the community, and ultimately the individuals within the community to change their environment and their behaviours to reduce the risk of injury and increase the perception of safety. (website of Australian Safe Communities Foundation).* The important point is that the approach encourages comprehensive preventive action based on programmes. The programming process is an important element to develop shared understanding and acceptance of measures taken. Programmes have to be based on a broad multi-sector partnership which reinforces the comprehensive approach to preventive action.
Further information	Websites of WHO and websites of various websites of national Safe Community networks.
Countries where similar approaches exist	Across the EU e.g. CZ, EE, SK

4.2 Example 2: Local Accident Commissions (DE)

Best practice in RS at local and regional level	
Name of the RS Action	Local Accident Commissions
Type of action	Data analysis and prevention strategy
Country and institutional level; LRA involved	Germany: Regions (Länder), sub-regions (Kreise), local level
Brief description of the action	In Germany road accident prevention is in the shared responsibility of national (Bund), regional (Länder), sub-regional (Kreise) and local level. Commissions and authorities on all administrative levels exist. Local investigations in order to prevent accidents are the joint responsibility of police, road traffic authorities, and road construction and maintenance departments. Their aim is to analyze accidents and accident locations with the use of accident maps, and to identify black spots. In the 1960s the process of setting up local accident commissions was started in Germany. In 1998 an evaluation of the work these commissions has revealed a couple of fundamental challenges: ▪ lack of qualification of members in the commissions ▪ lack of knowledge about safety provisions and planned mitigation measures ▪ restricted competence to decide on actions; quite often ad-hoc measures such as road markings with limited impact had been initiated ▪ tendency to act compliant in formal terms but not to work efficiently ▪ lack of guidance in the legal framework issued by the Länder As one of the results the German Association of Insurances initiated important steps to follow-up the results of this analysis: ▪ it designed and started to implement a curricula and training for commission members in 1999 which led to the result that new a community of trained persons can be used as a resource and contribute to harmonised standards for the work of the local commissions ▪ and – together with the Traffic Safety Council at national level – the Association in 2001 developed and implemented an award for good practices resulting from the work of local accident commission; about 115 Commissions have participated in this annual award procedure. Thus it promotes a discussion of good practices. Furthermore the award encourages a methodological approach including a sound data analysis in a mid-term perspective,

	Lately, in 2009 these local accident commissions have been anchored in the Road Traffic Act at national level: such Commissions have to be established. This was considered as an important step by the national Traffic Safety council: now the Commissions have become clear-cut entities in the legal framework which encourages the work of these bodies. About 500 of these Commissions exist.
Role of LRA	Costs of road accidents are estimated to cause a damage of about 31 bn. € p.a. in Germany. The accident risk is not equally distributed over the entire road network. Efficient work on black spots has to involve the key actors at local level. The role of the local level is evident since the approach targets sound analysis and black spot mapping at local level, decisions on most effective and efficient measures to be taken and support to implementation. The regions (Länder) were play an important role due to their support to for the local commission. Authorities at Länder level provide incentives and if needed also technical know-how for their work. The Länder also help to make the work of the Commissions more visible to a broader public. Quality of work and the professional approach of the Commission have been significantly improved in the past decade
Further information	http://www.verkehrstechnisches-institut.de/content/unfallkomm.htm
Countries where similar approaches exist	E.g. municipalities represented in the network of Safe Communities

4.3 Example 3: Project Roseman (AT-SK)

Best practice in RS at local and regional level	
Name of the RS Action	Project ROSEMAN
Type of action	Shared methodology for road safety audits and pilot measures at local level
Country and institutional level; LRA involved	Slovakia and Austria involving Austrian Road Safety Board and Slovak Technical University in Bratislava as initiating partners, the region (Land) of Lower Austria, and two Slovak and one Austrian municipality. Furthermore the Slovak National Road Authority is supporting the initiative
Brief description of the action	The project was submitted in the Slovak Austrian European Territorial Cooperation (ETC) Programme 2007 to 2013. Due to its obvious cross-border exchange elements, the novelty of road safety as an issue in ETC-programmes and the inclusion of pilot measures it was approved. The project approach rests on the following pillars: **Road Safety Audit** ▪ accident analysis in the cross-border area between Slovakia and Austria – selection of two stretches of regional road which are relevant for cross-border traffic and reveal significant accident risks ▪ the stretches of regional road will be subject to road safety audits (RSA) with mixed teams from both countries in order to exchange and share views on methodology for RSA ▪ a catalogue of priority measures based on key criteria efficiency and effectiveness will be developed for both roads (as kind of a showcase for planning of measures) **Demonstrators at the local level** ▪ based on the accident analysis in the cross-border area and local willingness and acceptance three municipalities have been chosen to implement pilot actions ▪ students will perform local traffic analysis and support evaluation of the impact of pilot actions ▪ decision on the concrete actions taken will be again based on efficiency and effectiveness (and the budget available from the project) **Cross-border Working Group on Road Safety** The work in the project is guided and accompanied by a working group which consists of representatives from project partners and relevant departments of regional authorities. All major work steps are being subject to discussion thus contributing to mutual learning and a shared view on key issues for road safety management in the

	cross-border region. Furthermore, meetings are enriched by other topics of interest such as good practice examples at local level or steps towards the implementation of European Road Safety Directives.
Role of LRA	Regional level is decisive to guide road safety at local level in Austria. In both countries local public awareness and acceptance of road safety measures is the decisive factor for a smooth implementation of measures. At the same time the project supports model planning processes – in contrast to frequent ad-hoc actions.
Further information	Project website: http://www.kfv.at/verkehr-mobilitaet/internationale-zusammenarbeit/roseman
Countries where similar approaches exist	Not known

4.4 Example 4: Road Safety Strategies at County and Local levels (UK)

Best practice in RS at local and regional level	
Name of the RS Action	Local Road Safety Officers
Type of action	Strategy
Country and institutional level; LRA involved	County of Essex in United Kingdom (UK) as one example which stands for a number of counties in UK performing sound and innovative road safety work.
Brief description of the action	**The Essex Road safety Strategy 2006-2011** The document convinces due to the sound though concise presentation of facts and the diversity of measures presented. It is an enriching example of a comprehensive road safety management approach at regional level. We can only highlight some key features: - implementation built on partnerships at county (Casualty Education Board) and local levels (Local Road Safety Forums) and thematic forums on risk groups such as motorcyclists or elderly citizens, the Safety Camera Partnership team the Safe Journeys to School Team etc. (the diversity of partnerships can be seen as a consequence of a long tradition of awareness-raising for road safety management) - The strategy outlines in detail the tasks of all major authorities which are involved in road safety management - The section on *Delivery through settings* includes sections on schools, work places, community involvement but also emphasises the need to direct actions towards known areas of disadvantage *Examples in the Action Plan* - GIS-based accident database combined with a Cluster Analysis Programme (examining accident clusters with similar types of accidents) is the basis for decision on cost effective treatment of black spots - Road safety audit is an integral part of any scheme - Action plans for risk groups such as young drivers, motorcyclists, children and elderly citizens **Local Casualty and Severity Reduction Scheme** Counties in UK inform the public also in sufficient detail about Casualty and Severity Reduction Scheme (CSR). A CSR is a road improvement scheme implemented on local roads to address identified road safety problems and reduce the number and severity of road traffic collisions. A CSR scheme may involve simple things like adding a new sign or road markings, or more

	complex things like changing the layout or geometry of the road. A CSR scheme can be applied at a specific site (for example, at a junction), along a route or over an area. County websites present the actions implemented as part of CSR plus a quick explanation of the technical aspects of the site treated.
Role of LRA	The development and the implementation of the strategy is in the responsibility of the county authority and the local authorities. However, counties and local authorities can count on support from the national level (which is conditional to the quality of the Plans presented). The need for austerity budgets might lead to a considerable cut in budgets available for road safety management at all levels.
Further information	Website of the County of Essex (UK)
Countries where similar approaches exist	Austria, Germany (Road Safety strategies of the Länder), Netherlands (provinces)

4.5 Example 5: Home Zones (NL-UK)

Best practice in RS at local and regional level	
Name of the RS Action	Home Zones
Type of action	Safe infrastructure in urban environments
Country and institutional level; LRA involved	Netherlands, United Kingdom Local authorities
Brief description of the action	The Home Zone concept was pioneered in the 1970s in the Netherlands. Since then, many countries have successfully transferred the core concepts and created their own safe areas. Home Zones are an attempt to strike a balance between vehicular traffic and everyone else who uses the street: pedestrians, cyclists, business people and residents. Some see Home Zones as a way of "reclaiming" local streets from a traditional domination by cars. Others see it more modestly as a way of trying to restore the safety and peace in neighbourhoods that are becoming overwhelmed with speeding traffic. In economic terms it is evident that a rather quiet neighbourhood will in - the longer run - lead to higher real estate prices compared to areas with high volumes of through traffic. Many European countries have established laws supporting Home Zone schemes. These Laws allow the restriction of the speed of vehicles within the Home Zone, some countries restrict speeds to 20 mph *(Tempo 30)* and other have reduced speeds to 10 mph or even less e.g. in Austria walking speed.
Role of LRA	The key challenge for local authorities is the acceptance of the measure and the subsequent financing of the road design. Home Zones are the source of some controversy: - It has been reported that such schemes have delayed the response rates of the emergency services to the streets within the Zone - In some cases authorities are confronted with complaints from residents demanding that the road humps and chicanes be removed as they are causing huge tailbacks through the streets - In rare cases the residents of a home zones are actively campaigning to have the road alterations removed as they can no longer park near their houses or feel disturbed by the noise of children playing in the street Local authorities will be – in many cases - in the role of a facilitator and a mediator in the planning process. The controversial aspects hint at the need for a prudent and participatory planning and preparation process.

	As regards cost and financing – as the second key aspect - one has to see that alternatives exist. Road alterations might be done in various ways: effective designs do not necessarily lead to high cost and residents might be motivated to contribute to maintenance. Designs for Home Zones in UK focus on reducing accidents and do not exploit much of the environmental enhancements inherent in the schemes. Their emphasis is on functionality rather than style. However in those countries where Home Zones have become more widespread it was largely also due to the existence of pilot schemes or incentives backed with financial resources from the national level.
Further information	www.homezones.org (discussing examples from United Kingdom, Netherlands and Germany)
Countries where similar approaches exist	Austria, Denmark, France, Germany, Luxembourg

4.6 Example 6: Integrated Safety Strategy for Motorists (ES)

Best practice in RS at local and regional level	
Name of the RS Action	Integrated Safety Strategy for Motorists ("Estrategia de Seguridad Vial Integral para Motoristas")
Type of action	infrastructure
Country and institutional level; LRA involved	Spain, regional level, Community of Madrid
Brief description of the action	A representative of the Community of Madrid together with motorist associations signed a protocol on the 30th of January 2009 in which the Community of Madrid launched its Integrated Safety Strategy for Motorists. The first step of this project was the installation of 40 kilometers of crash barriers at principal roads in the region. In close cooperation the Community of Madrid and the motorist associations it was ensured that crash barriers were adequately installed. It was further monitored where a further installation could be necessary. The strategy foresees in a second step awareness rising of adolescents and road safety education in institutions of secondary education. Until the end of 2009, 85 kilometres of crash barriers have been installed at the principal roads of the region of Madrid. By this strategic process, Madrid has become the first Spanish region providing a principal road net which is completely protected by crash barriers. Furthermore, 85 kilometres of new crash barriers will be installed for the secondary road network in the region of Madrid by 2010. It is planned for 2010 that road safety education will take place in secondary education establishments. Complementary action shall ensure that Madrid's very high number of road deaths as well as road accidents will be reduced in the next years. It is thus an action to prevent road accidents by means of road safety education and to reduce road deaths as a result of improved road protection by crash barriers. The Community of Madrid was responsible for this action. Motorist associations cooperated with the regional authority in order to make sure that installation of crash barriers were implemented appropriately.
Role of LRA	The specific role of the Community of Madrid was the development and implementation of this action. Since the Community of Madrid is among the communities with the highest number of road deaths in Spain, it is a necessary political action that sends a signal to other Spanish regions.

	The Community of Madrid undertook a flagship project by being the first Spanish region to provide a fully protected main road network. This will be followed by a secondary road network fully protected by crash barriers in the future.
	The Community actively involved civil associations in order to ensure the most effective implementation of this action. Since the main target group – motorists – participated in this process from the beginning, a very positive reputation for road safety actions by regional authorities is likely in this context.
	The regional authority developed and implemented this action in a strategic and participatory process. It is essential in this context that the regional level ensures the consideration of relevant stakeholders to be involved which may not get involved at national level. Moreover, it provided a strategic perspective which may not be achieved at municipal level.
Further information	Comunidad de Madrid, Direccíon General de Carreteras Phone: +34 91 580 28 00 / 91 580 28 01
Countries where similar approaches exist	

4.7 Example 7: Programme "Road with Life"(PT)

Best practice in RS at local and regional level	
Name of the RS Action	Programme "Road with Life" ("Programa ESTRADA COM VIDA")
Type of action	road safety education (RSE)
Country and institutional level; LRA involved	Portugal, regional level, Government of Braga ("Governo Civil de Braga")
Brief description of the action	The knowledge network "Rede Comum de Conhecimento (RCC)" was created by the Agency for administrative Modernisation ("Agência para a Modernização") in February 2009. It selected an initiative of the Government of Braga as good practice for further dissemination. The Government of Braga dedicated great importance to the combat of road accidents. Triggered by the Coordinative Council for District Road Safety it has developed in the last years a number of initiatives for a reduction of road accidents. The selected and to be disseminated initiative ESTRADA COM VIDA focus on the training of pupils of the fifth year in school in order to gain improved knowledge and awareness in the context of traffic rules and road safety. The pupils were prepared to integrate themselves successfully in the future in the transport system as responsible and considerate participants. The training consisted of theoretical education as well as practical action & demonstration on the road. All participants received a certificate at the end. This action started April 2008 and was extended in 2009 and 2010: more than 11 000 pupils had been trained by February 2009. It was expected that 20 000 scholars would have been trained by the end of 2010. The Government of Braga was responsible for this action.
Role of LRA	The specific role of the Government of Braga was the development and implementation of this action. The regional government plays a key role for the training and awareness rising in the context of scholars. Obviously, the regional authority is the most important stakeholder for road safety education at school level.
Further information	Governo Civil de Braga Phone: +351253200200; Fax: 253200271 E-mail: geral@gov-civil-braga.pt; secretaria@gov-civil-braga.pt
Countries where similar approaches exist	See parts of the Estonian Traffic Safety Programme, example 9

4.8 Example 8: Strategic target board as a management tool for Spanish road safety (ES)

Best practice in RS at local and regional level	
Name of the RS Action	Strategic target board as a management tool for Spanish road safety
Type of action	Strategy
Country and institutional level; LRA involved	Spain, national level, administrative role of LRAs all over the country and participation in working groups
Brief description of the action	**The Spanish Road Safety Plan** The Spanish Road Safety Strategic Plan has three axis: 1. Quick measures to achieve results were the introduction of the Penalty Points license, Creation of the National Road Safety Observatory, Promotion of the Road Safety Council, a significant increase of traffic officers and the introduction of speed cameras on highways. 2. With the aim of ensuring that the previous measures have a lasting effect over time, the 2005-2008 Key Strategic Action Plan was drawn up, in which civil society and other administrations play a crucial role in the drafting, performance and monitoring process. 3. In order to address the traffic accidents in urban areas, a Basic Urban Road Safety Plan was drafted, aimed at defining a methodology for interventions in this specific area of road safety policy. **The score board of basic indicators** The score board of basic indicators was based on the analysis of the pattern of injury accidents sorted by 3 criteria (user, vehicle and road) and 2 additional lines of analysis (timing factors and severity). 26 strategic objectives have been identified in the belief that achieving these targets for a long time would improve road safety in Spain. The strategic objectives taking 2003 as base year, and establish for the year 2008 objectives of reducing accidents, such as the objectives of reducing the number of deaths by 40%, the reduction in the number of serious injuries by 24%, reducing the number of deaths and serious injuries on weekend, etc. Three bodies are involved in the monitoring and evaluation procedure: the National Road Safety Observatory, the Directors Committee (all General Directors involved in Road Safety) and the Road Safety Council.

	Main measures carried out during the 2004-2008 Plan ▪ In July 2004 the National Road Safety Observatory was created. ▪ In September 2004 the automatic speed cameras plan 2005 - 2008 was launched ▪ The Road Safety Strategic Plan 2005-2008 was designed at the end of 2004. ▪ A new system for collecting accident data was established in January 2006. ▪ Road Safety was introduced as a compulsory subject in the educational system in May 2006. ▪ The penalty point system was introduced in July 2006. ▪ Specific Prosecution for Road Safety was created in November 2006. ▪ Urban Road Safety standard pattern Plan was finished in 2007 ▪ Estrada, administrative centre for processing speeding fines was created in 2007. ▪ The Strategic Plan for Motorcycles was launched in 2007 ▪ The reform of the Spanish Penal Code was done at the end of 2007: main issues were regarding alcohol, speed and driving without a licence.
Role of LRA	LRAs all over the country have an administrative role within the 2005-2008 Key Strategic Action Plan. E.g.: Coordination of officers or assistance to identify specific targets from the accident pattern analysis, in order to set up specific targets and measures for the priority road users. Also within the monitoring activities of the plan LRAs play a crucial role. The Plan is an integral model with measures from a user behaviour point of view, vehicle security and infrastructure. Furthermore the Road Safety Council is advised of the status of the plan's performance an achieved results. It is a body of participation through local and regional working groups that are created within it.
Further information	Pilar Zori Bertolin Spanish Road Safety Observatory Direccion General de Trafico. Ministerio del Interior. pzori@dgt.es
Countries where similar approaches exist	Road safety management of the highway network, Transport Research Laboratory, UK

4.9 Example 9: Estonian National Traffic Safety Programme for 2003-2015 (EE)

Best practice in RS at local and regional level	
Name of the RS Action	Estonian National Traffic Safety Programme for 2003-2015
Type of action	Strategy
Country and institutional level; LRA involved	Nationwide strategy of the Estonian Road Administration (ERA) with participation and measures on regional and local level.
Brief description of the action	**Traffic Safety Programme 2003-2015** The ERA in co-operation with ministries, administrations, local municipalities and educational institutions continues to implement the measures of the traffic safety programme application plan for 2008-2011. Reduction of the planned financing for traffic safety, approximately by a half from the state budget, considerably influenced the application extent of the measures. The decrease of traffic accidents and improvement of other traffic safety indicators in 2009 was caused by several factors, including the economic downturn. Besides, the stability and continuity of national traffic inspection, traffic education and establishment of safety infrastructure foreseen by the traffic safety programme contributed to the improvement of traffic safety. Preliminary activities have started in order to apply intelligent traffic systems, which must support both pedestrians and drivers, improve traffic safety and upgrade the service level of roads and streets. The most essential step was applying an automated traffic monitoring system on the Tallinn-Tartu road in 2009, which has already had an impact on the choice of safe speed. Working out new measures for road planning, design and construction has started on the basis of the European Parliament and Council Directive on road infrastructure safety. To improve traffic safety, traffic in 19 of the most dangerous accident blackspots all over Estonia was rearranged, including construction of 3.3 km of pedestrian and cycle-ways and 0.8 km of sidewalks on roads passing settlements. In 2010 the Traffic Safety Programme Division of the ERA starts working out the application plan for the 3rd stage of the traffic safety programme for 2012-2015. **Speed Cameras on Tallinn-Tartu Road** In 2009, for the first time in Estonia, stationary automated speed cameras were installed on the road as a measure of the traffic safety programme. The cameras record the speed of the passing vehicles which exceed the speed limit, the place and the time of the violation and take a photo of the vehicle and the driver.

During the year 2009, 16 speed cameras were installed on an approximately 65 km long section of Tallinn-Tartu road. By the end of October the measuring cabins of the cameras were set, in November additional calibration and testing followed. Drivers travelling in the direction of Tartu from Tallinn are observed on the road section Sõmeru-Kiigevere (~65 km). The traffic flow moving from Tartu to Tallinn is monitored by the cameras on the road section Koigi-Matsimäe (~33 km). The cameras are most densely located on the section between Matsimäe and Kükita, where 9 cameras have been installed.

The statistics of the last five years about traffic accidents with casualties, the traffic density, the speed of the vehicles, availability of electricity supply and other local conditions have been considered when choosing the location of speed cameras. The purpose of installing the cameras is calming down the traffic in order to decrease the number of accidents. Due to the cameras possible racers will be restrained, speed will fall within the allowed limits and traffic on the dangerous sections is made safer. Based on the experience of other countries, it is estimated that speed cameras reduce traffic accidents by 20%.

Traffic Education

In traffic behaviour and traffic education, continuity is decisive. Therefore, it is important to continue several activities over a longer period. For example, since 1997, the Traffic A-B-C book (a teaching material with a long history) has been given as a present to children at the beginning of their school year. At present, teaching materials concerning traffic consist of more than 60 items in the collection of the ERA. There are educational board games, paint and think books, workbooks with traffic exercises, educational films, training materials for cyclists etc. in this collection. These materials are directed to children of kindergartens, pupils of comprehensive schools, their teachers and also driving schools. 20 teaching materials have also been issued in the Russian language.

Training materials:

- Traffic Safety Quiz is a didactic board game that expands memory. It deals with using the safety belt and other safety equipment, crossing the road, driving or walking in the courtyard area or on pedestrian and cycle ways. The quiz includes 18 cards with images of traffic signs for learning the meaning of these signs.
- The Workbook "I Drive Safely" has been worked out for the pupils of primary and basic school and includes several attractive exercises.
- Audiovisual teaching programmes "Moving in the street with

	a group of children" (for teachers who accompany groups of pupils) and "Drive Safely on a Highway" (dealing with preparations for driving, keeping safe longitudinal and lateral distance, safe overtaking etc).
Role of LRA	Local road traffic commissions were established by city governments in Tallinn, Tartu, Pärnu and Narva. Moreover, the first local traffic safety programmes were put together in Tallinn and Narva. Educational programmes are carried out at local level in co-operation with the Ministry of Education and Research.
Further information	Estonian Road Administration Pärnu Road 463a, Tallinn 10916 Tel +372 611 9300 | Fax +372 611 9360 E-mail: info@mnt.ee www.mnt.ee
Countries where similar approaches exist	All over Europe

4.10 Example 10: Network: „Verkehrssichere Städte und Gemeinden im Verkehrsverbund Rhein-Sieg" (DE)

Best practice in RS at local and regional level	
Name of the RS Action	Network: „Verkehrssichere Städte und Gemeinden im Verkehrsverbund Rhein-Sieg"
Type of action	Road Safety Network at local/regional level
Country and institutional level; LRA involved	Germany: Regions (Länder), sub-regions (Kreise), local level
Brief description of the action	In 2005 more than 30 sub-regions signed a declaration of commitment to work together in matters of road safety (including the cities of Köln and Bonn). The main objectives of this Road Safety network are: ▪ On the one hand to reduce accidents involving children and young people and on the other hand to support their individual mobility ▪ To build a network of all relevant stakeholders and administrations of the municipalities and communities ▪ To share information and experiences within the network The coordination office for all measures and activities is at Länder-level and the implementation is carried out at local and regional level. The benefits of the cooperation network are: ▪ Shared use of resources ▪ Concentration of the Road Safety work in municipalities and communities ▪ Variety of methodologies and ideas ▪ Faster procedures ▪ Sustainable development towards child-friendly traffic planning ▪ Integration and use of voluntary work ▪ Better integration of schools in the regions Specific measurements within the safety network: ▪ A handbook for the network ▪ Development of a guide for a safe way to school ▪ "Schulwegdetektive" – implementing school crossing guards ▪ Certain projects concerning safety education for young cyclists
Role of LRA	Every municipality or community participating in the network is carrying out the above mentioned measures and activities.
Further information	Verkehrsverbund Rhein-Sieg GmbH Krebsgasse 5-11 50667 Köln Phone: 0049 0221 / 20808 730

	Mail: info@vrsinfo.de www.vrsinfo.de
Countries where similar approaches exist	Certain networks like the example can be identified all over Germany

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