6ο Πανελλήνιο Συνέδριο Οδικής Ασφάλειας
www.nrso.ntua.gr/roadsafety2015
roadsafety2015@gmail.com

Road Safety Management in Greece

Eleonora Papadimitriou [1], George Yannis [2], Nicole Muhlrad [3]

[1]National Technical University of Athens
Email: nopapadi@central.ntua.gr

[2]National Technical University of Athens
Email: geyannis@central.ntua.gr

[3]IFSTTAR - France
Email: Nicole.muhlrad@ifsttar.fr

Διαχείριση Οδικής Ασφάλειας στην Ελλάδα

Περίληψη

Στην παρούσα εργασία αναλύεται η πολιτική οδικής ασφάλειας στην Ελλάδα, με βάση μεθοδολογίες που αναπτύχθηκαν και δεδομένα που συλλέχθηκαν στο πλαίσιο του ερευνητικού έργου DaCoTA της Ευρωπαϊκής Επιτροπής. Το ερευνητικό έργο DaCoTA είχε ως αντικείμενο την ανάλυση των συστημάτων διαχείρισης οδικής ασφάλειας στην Ευρώπη με στόχο την προώθηση καλών πρακτικών και τη βελτιστοποίηση των διαδικασιών. Για το σκοπό αυτό, τα συστήματα διαχείρισης οδικής ασφάλειας 14 χωρών εξετάστηκαν για το έτος 2010, με βάση στοιχεία από συνεντεύξεις με αντιπροσώπους των κυβερνήσεων και ανεξάρτητους ειδικούς, οι οποίοι συμπλήρωσαν ένα εκτενές ερωτηματολόγιο για το βαθμό στον οποίο τα συστήματα οδικής ασφάλειας πληρούν τα κριτήρια καλών πρακτικών. Οι ερωτήσεις αφορούσαν στους 5 τομείς της πολιτικής οδικής ασφάλειας: (i) θεσμική οργάνωση, (ii) διαμόρφωση και υιοθέτηση πολιτικής, (iii) εφαρμογή και χρηματοδότηση πολιτικής, (iv) παρακολούθηση και αξιολόγηση, (v) επιστημονική υποστήριξη. Τα στοιχεία αναλύθηκαν με ποιοτικές μεθόδους ανάλυσης όπου πραγματοποιήθηκε σε βάθος ανάλυση και έλεγχος των απαντήσεων και των σχολίων του ερωτηματολογίου, ώστε να δημιουργηθεί μια ακριβής και αξιόπιστη εικόνα (προφίλ) της διαχείρισης οδικής ασφάλειας. Το «προφίλ» διαχείρισης οδικής ασφάλειας της Ελλάδας εξετάστηκε σε σχέση με ένα «προφίλ αναφοράς» το οποία αντιστοιχεί υποθετικά σε κάποια χώρα που πληροί όλα τα κριτήρια καλών πρακτικών. Τα αποτελέσματα δείχνουν ότι στην Ελλάδα, όπως και σε ορισμένες άλλες χώρες, προβλέπονται δομές και διαδικασίες διαχείρισης οδικής ασφάλειας, οι οποίες συχνά δεν είναι ενεργές, καθώς και στρατηγικές και προγράμματα οδικής ασφάλειας, τα οποία εφαρμόζονται πλημμελώς. Κατά συνέπεια, δεν υπάρχει συγκεκριμένη χρηματοδότηση για την πολιτική οδικής ασφάλειας, ούτε συστηματική παρακολούθηση και αξιολόγηση των προγραμμάτων και των μέτρων. Με βάση τα παραπάνω, προτείνεται μία σειρά μέτρων για τη βελτίωση της διαχείρισης οδικής ασφάλειας στην Ελλάδα.

Λέξεις κλειδιά: *διαχείριση οδικής ασφάλειας, καλές πρακτικές.*

Abstract

In this paper, the road safety management system in Greece is analysed, on the basis of methodologies developed and data collected within the DaCoTA research project of the European Commission. More specifically, the DaCoTA project aimed to investigate the road safety management framework in European countries in order to help promote "good practice" and optimize management processes. For that purpose, road safety management systems have been thoroughly investigated in 14 European countries in 2010, by means of interviews with governmental representatives and independent experts in each country who filled in an extensive questionnaire on the degree to which the various road safety management systems meet the "good practice" criteria. The questions related to five main areas of Road Safety Management: (i) Institutional organisation, (ii) Policy formulation and adoption, (iii) Policy implementation and funding, (iv) Monitoring and evaluation, and

(v) Scientific support and capacity building. The data was then analyzed by means of qualitative analysis i.e. a thorough analysis and cross-checking of the questionnaire responses and related comments of the experts, in order to draw a reliable and accurate picture or "profile" for each country. The country profile of Greece was examined against a 'reference' country profile, which was assumed to meet all the goof practice criteria. The results reveal that in Greece, as in other European countries, there are road safety management structures and processes foreseen, which are often not active, and road safety strategies and programmes, which are implemented scarcely. As a consequence, there is no dedicated budget for road safety, and no regular monitoring and evaluation of the implementation of road safety policies. Several recommendations for the improvement of road safety management in Greece are outlined.

Keywords: *road safety management, good practice*.

1. Background and objectives

In Muhlrad et al. (2011) a road safety management system is defined as "a complex institutional structure involving cooperating and interacting bodies which supports the tasks and processes necessary to the prevention and reduction of road traffic injuries". By definition, a road safety management system should meet a number of "good practice" criteria spanning the entire policy making cycle, from agenda setting to policy formulation, adoption, implementation and evaluation, and including efficient structure and smooth processes, in order to enable evidence-based policy making.

A basic assumption is that effective organization of road safety management is one of the conditions for obtaining good road safety results at country level (OECD, 2008; ERSO, 2008). Moreover, as road safety is becoming more and more integrated into broader scoped transport or environment policies, and given the effects of the current economic recession on road safety resources, the need for optimization of road safety management systems becomes even more pronounced (Bliss & Breen, 2009).

Within this context, the road safety management investigation model proposed by Muhlrad et al. (2011) within the DaCoTA research project of the European Commission is based on several "good practice" criteria, defined by an exhaustive literature review, aiming to address the need for optimized road safety management systems, leading to better road safety performance, in a changing environment.

The main objective of the DaCoTA project with respect to road safety management systems was to investigate the road safety management framework in European countries in order to help promote "good practice" and optimize management processes. More specifically, the research objectives addressed were as follows:

- To formulate hypotheses of "good practice", to be validated, and criteria to assess "good practice" in each country;
- To describe and document the road safety management systems of European countries in terms of institutions, processes, tasks and outputs;
- To identify patterns and particularities of road safety management systems in Europe and group countries on the basis of road safety management systems characteristics;
- To investigate the link between road safety management and road safety performance;

For that purpose, road safety management systems have been thoroughly investigated in 14 European countries in 2010, by means of interviews with governmental representatives and independent experts in each country who filled in an extensive questionnaire on the degree to which the various road safety management systems meet the "good practice" criteria. The questions related to five main areas of Road Safety Management:

- Institutional organisation, coordination and stakeholders' involvement
- Policy formulation and adoption
- Policy implementation and funding
- Monitoring and evaluation
- Scientific support and information, capacity building

The data was then analyzed by means of qualitative analysis i.e. a thorough analysis and cross-checking of the questionnaire responses and related comments of both the governmental representatives and the independent experts, in order to draw a reliable and accurate picture or "profile" for each country (Papadimitriou et al., 2012).

Within this context, the objective of this paper is the analysis of road safety management in Greece on the basis of the DaCoTA methodology and data, and the drawing of conclusions and recommendations for the improvement of road safety management in Greece.

2. The road safety management questionnaire

The primary data collection tool for information about Road Safety Management (RSM) was a questionnaire. A thorough report on how this questionnaire was developed and the theory behind it can be found in Muhlrad et al (2011).

Given that Road Safety Management is a complex topic, the choice was made to have the questionnaire filled in on the basis of an interview, either face to face or via the telephone. To aid understanding, it was also important for these interviews to be conducted in the native language of the interviewee. Therefore the initial sample of target countries was those where the DaCoTA partners could converse in the native language. The partners represented 12 countries: Austria, Belgium, Finland, France, Greece, Israel, Italy, Latvia, the Netherlands, Poland, Spain, and the United Kingdom and were able to collect data in the native language of a further 2: Ireland and Switzerland.

Two groups of road safety professionals were targeted in each country:

- Government representatives: Road safety practitioners who are or have been directly involved in policy and decision making over a long enough period of time for them to have acquired wide-ranging experience in road safety,
- Independent experts: Road safety researchers or scientists who may contribute to policy but do not have a decision making role and could offer a non-partisan view of the Road Safety Management systems in place.

This approach was taken to try and gain as detailed and accurate an overview of each country's Road Safety Management system as possible. In a number of cases, the answers provided by each type of expert seemed to lack consistency. For qualitative analysis however, the points of disagreement identified provided additional information: interpretation of the road safety management situation is bound to be different for somebody whose duty is to defend the system he is a part of, and for an external scientific expert whose job it is to be critical about what exists with a view to improve the system. Cross-analysing comments from both sides proved to clarify the final picture of the country's situation.

3. The road safety management investigation model

Qualitative analysis was carried out in two complementary ways: first, country by country to describe the existing RS management systems in Europe and compare them to a typical "good practice" system. More specifically, a "country profile" was established for each country where interviews were conducted (14 countries). Second, on the basis of question by question comparisons performed for items in the questionnaire concerning specific issues.

The country profiles describe road safety management structures and outputs according to the policy-making cycle (agenda setting, policy formulation, adoption, implementation and evaluation) set against the background of a typical hierarchical national government organization (Figure 1). Because such a typical organization is not suited to managing road safety policies which involve most government sectors, specific structures have been set up in most countries, modifying or short-circuiting the typical hierarchical administration. For each

country, these structures as well as the working processes were charted to provide a graphic picture of the road safety management situation ("country profile"). Focus was on the national organization and the relations between national and regional/local structures and not on road safety management at the decentralized level, as it was agreed at an earlier stage of methodology building that this aspect could not be tackled in the time-frame of the DaCoTA project. Looking at the various country profiles, it is necessary to bear in mind that some countries are now undergoing an evolution process, and that the current situation may already be different from what was described by the experts interviewed before the beginning of 2012.

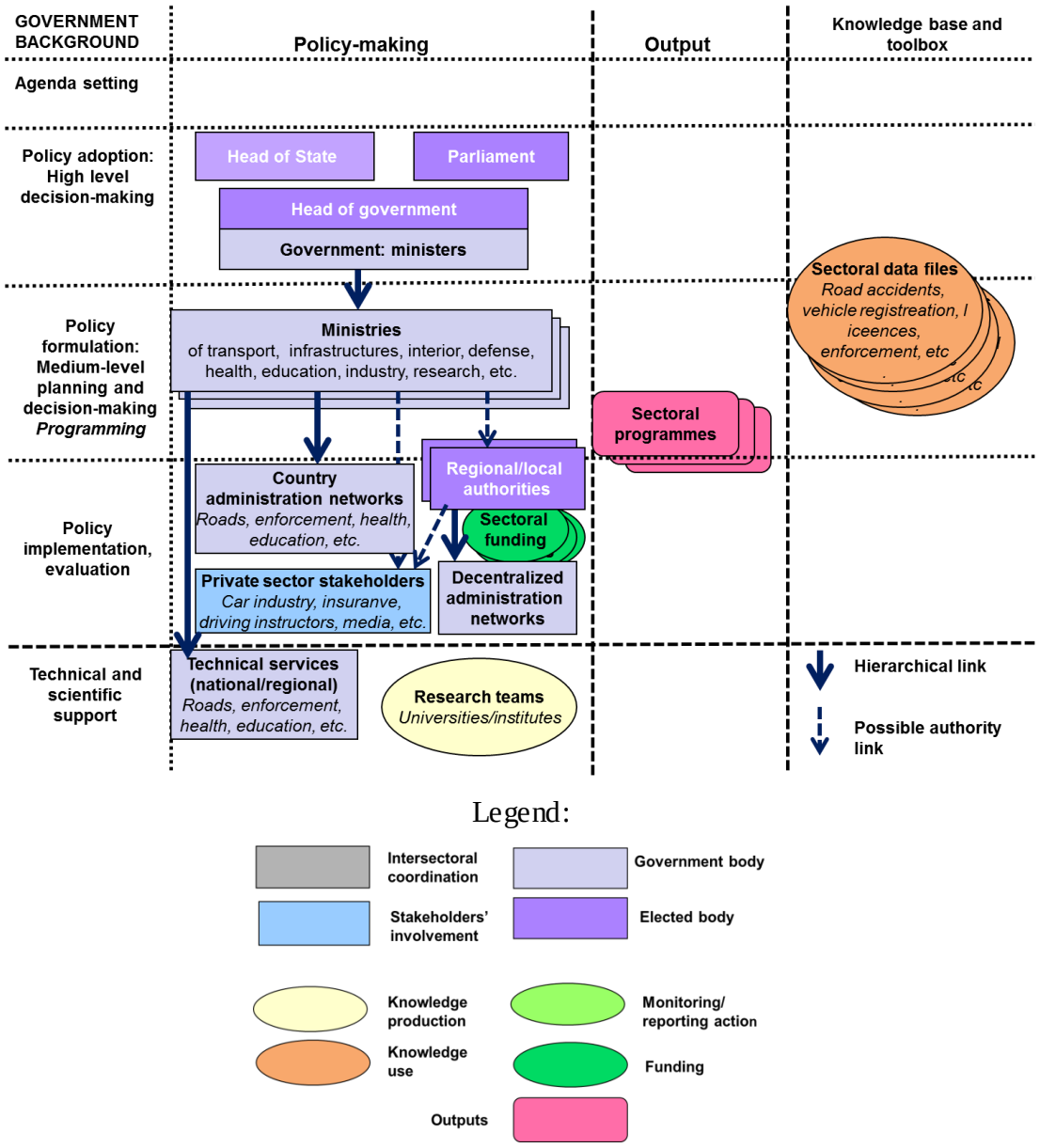
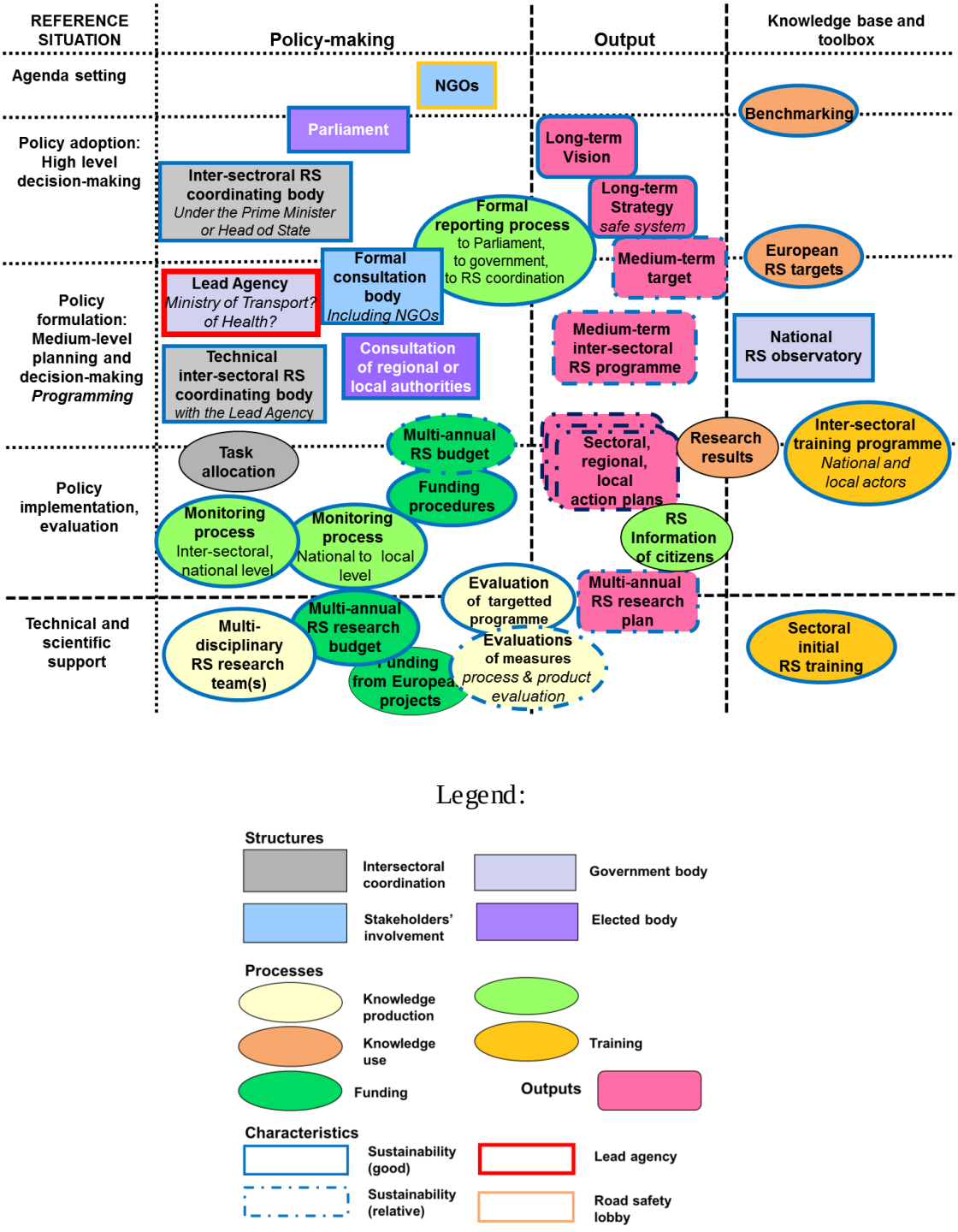


Figure1: *Government organization background*

The most complete RS management system which would be obtained for a country fulfilling all the "good practice" criteria identified in the methodology was used as a reference (Figure 2). For each country, "good practice" elements, lack of such elements and peculiarities were

summarised in a 'diagnosis' table including structures, processes, policy-making tasks and outputs according to the investigation model.



Legend:

Figure 2: *Reference country profile*

4. Analysis of road safety management in Greece

4.1 Road safety structures, processes and outputs

Figure 3 summarises "good practice" elements, lack of such elements and peculiarities concerning structures, processes, policy-making tasks and outputs in Greece. These are based upon the investigation model developed within DaCoTA, and the related questionnaire responses of one governmental representative and one independent expert in the country.

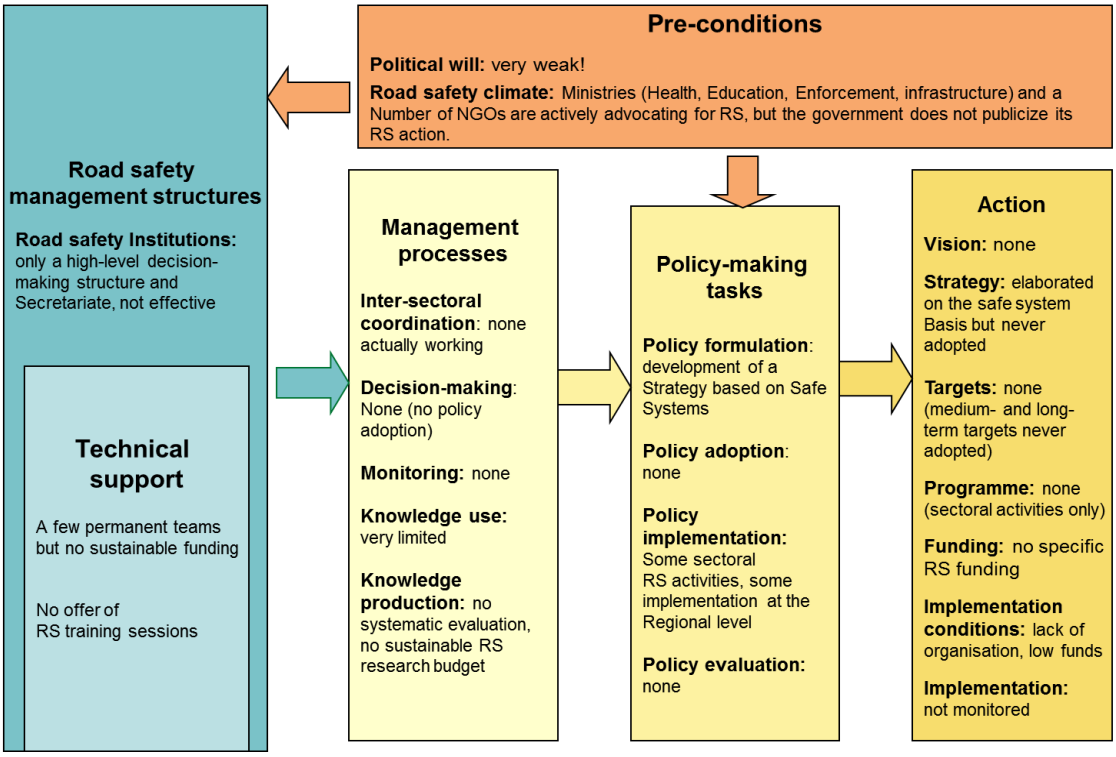


Figure 3: *Overview of road safety management good practice elements in Greece - 2010*

In Figure 4, road safety management structures, work processes and outputs in Greece are described according to the policy-making cycle (agenda setting, policy formulation, adoption, implementation and evaluation). Focus is on the national organization and the relations between national and regional/local structures.

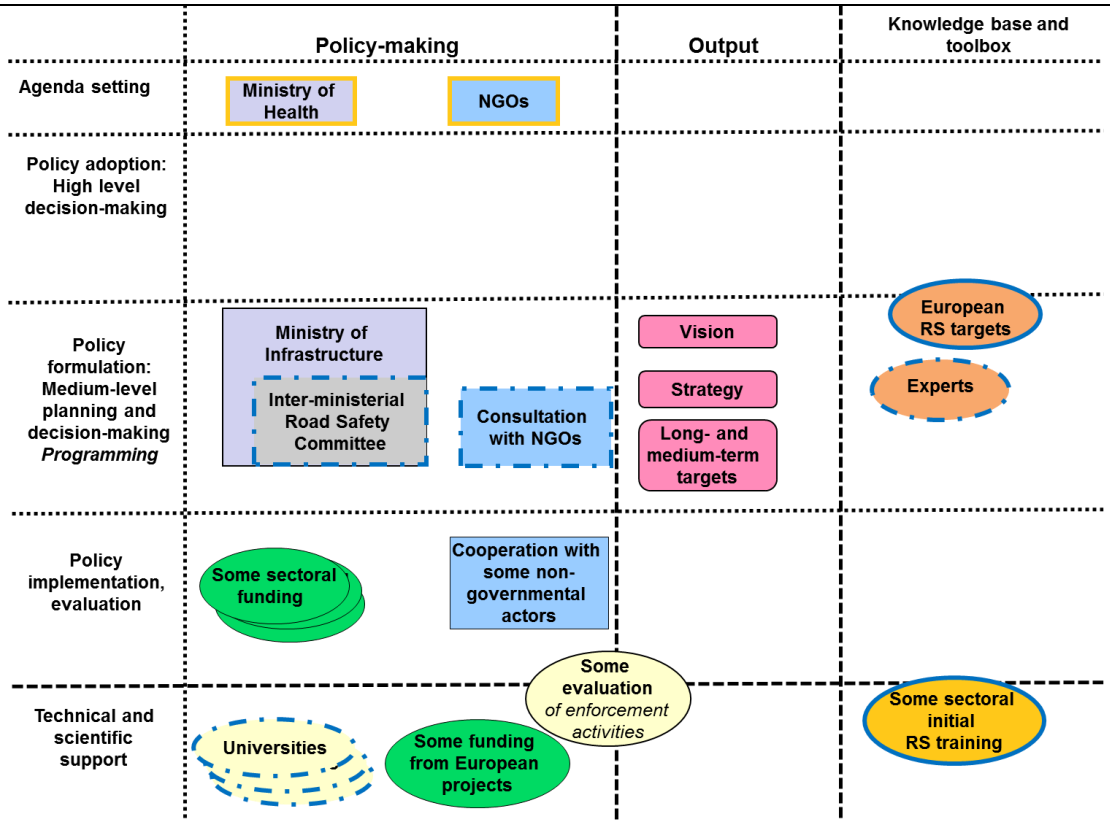


Figure 4: *Structures, processes and outputs in Greece - 2010*

4.2 A good practice 'diagnosis'

The existing road safety management structures and processes in Greece were set against the "most complete road safety management management system" which would be obtained for a country fulfilling all the "good practice" criteria. The good practice 'diagnosis' for Greece is presented in Table 1.

Table 1: *Road safety management 'diagnosis' for Greece - 2010*

Diagnosis: Greece	
"Good practice" elements	✓ The ministry of Health as well as some NGOs are strongly advocating for road safety. ✓ An inter-ministerial road safety committee (including regional authorities). ✓ Development of a medium-to-long term Strategical plan based on Safe Systems. ✓ Availability of multi-disciplinary research teams.
Elements needing improvement	✓ Road safety is not a recognized policy area. ✓ The inter-ministerial road safety committee does not have decision power and cannot really perform inter-sectoral coordination (under the ministry of Infrastructures rather than the Prime Minister); it is not currently operational (no budget). ✓ A structure for stakeholder consultation may have existed but is now inactive. ✓ No road safety observatory. ✓ No process to integrate national and regional activities, no reporting from the regional to the national level. ✓ The road safety Strategic Plan has never been formally adopted by the government. ✓ No identifiable budget for road safety. ✓ Limited use of knowledge in policy-making and the design of interventions, no benchmarking. ✓ No evaluation of road safety interventions. ✓ Little national funding for research (European funding keeps the research teams going). ✓ No substantial offer of road safety training. ✓ No training plans for road safety actors.

5. Discussion

In Greece, in spite of several Ministries (including Health) advocating the need for RS action and a number of road safety NGOs doing the same, road safety is hardly considered an area of activity of its own. The only management structure ever legally created is the inter-ministerial Road Safety Committee which has no authority over the other sectors' administrations as it has been placed under the Minister of Infrastructure rather than under the authority of the Prime Minister. In reality, the Committee has no decision making power and no budget of its

own. In spite of its recently created Secretariat, it does not work effectively, as clearly showed by the outputs.

Similarly, there may have been a structure for consultations of stakeholders including NGOs and some experts, but it does not appear to be active.

Although all three administrative levels (national, regional, local) are involved in RS action, and the regional authorities are represented in the inter-ministerial RS Committee, there is no process to integrate national and regional RS activities. There is no reporting from the regional/local levels to the national one.

The main road safety output is a strategic plan, based on a Safe Systems approach and including a vision and targets for 2015 and 2020, which was developed but never formally adopted as a national policy. This demonstrates an obvious gap between policy formulation and policy adoption at a very early level in the decision-making chain. As a consequence, it seems that no RS programme has even been submitted for policy adoption (although a medium-term action programme may have been developed).

Without a road safety programme, it is not surprising that there is no identified road safety budget. However, some RS interventions are implemented from the budget of ministries and some NGOs coordinate their activities with the government's. The monitoring process included in the Strategic plan has not been implemented. It seems that it is not so much adequate manpower but organization which prevents the implementation of some RS measures (except perhaps in Health and Education).

The base of knowledge used in policy formulation is limited, which is to be expected as policy adoption has not taken place. Only police accident data is available on a systematic basis, benchmarking is not really used (except at the research level) and there is no systematic evaluation of the measures implemented.

Although the country has some university-based multi-disciplinary scientific teams available, knowledge production is not in a strong position: research has to rely on funding from European programmes which are, by nature, non-sustainable. In the present situation, there can be no substantial offer of road safety training for professionals.

6. Conclusions and recommendations

The analysis of the road safety management country profile of Greece, compared to those of other countries, reveals a number of critical elements which warrant particular emphasis for the improvement of road safety management in Greece.

The results of the DaCoTA analyses on road safety management systems suggest that, although a number of "good practice" elements can be established as regards road safety management structures, processes and outputs, it is not possible to identify one single "good practice" model at national level (Muhlrad et al., 2011; Elvik, 2012). One clear finding is that similar performance in road safety management can be achieved by means of differing structures and implementation processes (Papadimitriou & Yannis, 2013).

Despite the differences in European road safety management systems, there have been several elements that emerged as more critical "good practice" criteria, such as the presence of a strong lead agency, the efficiency of the implementation – monitoring – evaluation part of the policy making cycle, the embedding of programmes in sustainable and results-focused structures and processes, and the distribution and coordination of responsibilities between federal, regional and local levels. Especially the implementation, funding, monitoring and

evaluation elements showed the lowest level of availability in the European countries and appear to be the most problematic sections of the road safety management systems.

The results confirm the fact that the existence of an organisation or function does not necessarily imply that it functions well; indeed, several countries, including Greece, have structures, lead agencies, strategies and plans, which are very partially if at all implemented, mainly due to lack of political will and motivation, lack of funding and coordination, lack of clarity in roles and responsibilities etc. This is the case for Greece and other poor performing countries, which scored high on institutional organisation and policy formulation, but very low on policy adoption, implementation, funding, monitoring and evaluation.

Another finding that warrants further discussion concerns the differences observed between expert's and government's responses, in several countries including Greece; governmental representatives tend to be more positive, especially as regards the role of the government, the availability of programmes, the resources and funds allocation, the reporting procedures, the information of citizens etc. It was concluded that expert responses may reflect an independent and more objective view and that future analysis might better use experts' opinion as a prime source.

However, neither the independent experts nor the governmental representatives may have the exact picture of road safety management. It is very unlikely that there exists a single person in the country that might know perfectly the situation, and it is strongly suspected that the discrepancies are due to different visions of the situation.

On the basis of the results of the present research, the following key messages and recommendations can be outlined for the improvement of road safety management in Greece, as well as in other European countries:

- Develop objective knowledge of RSM within countries
- Decentralisation with care
- Establishment of an Independent Lead Agency
- Inter-sectoral and vertical coordination
- Continuous stakeholders consultation
- Vision and strategy is crucial for creating a road safety culture, but implementation is the critical step towards road safety improvement
- Strengthen the link from policy formulation to policy adoption
- Regular monitoring and evaluation
- Resources and funding
- Knowledge-based policies
- Capacity building & training
- Handle road safety management in times of recession

Acknowledgements

This paper is based on work carried out within the scope of the DaCoTA (Data Collection Transfer and Analysis) project of the 7th Framework RTD Program of the European Commission. The authors would like to acknowledge the important contribution of all the partners involved in the DaCoTA WP1 "Policy" in the development of the methodologies and outputs used in this paper. The authors would also like to address special thanks to the governmental representative and the independent expert of Greece, for filling in the questionnaire and providing useful and insightful comments on the road safety management system in the country.

References

Bliss T. and Breen J. (2009). Implementing the Recommendations of the World Report on Road Traffic Injury Prevention. Country Guidelines for the Conduct of Road Safety Capacity Reviews and the Related Specification of Lead Agency Reforms, Investment Strategies and Safety Projects. World Bank Global Road Safety Facility, Washington, DC.

Elvik, R. (2012). Does the use of formal tools for road safety management improve safety performance? In the Proceedings of the 2012 TRB Annual Meeting, Transportation Research Board, Washington DC.

ERSO (2008). Road Safety Management, European Road Safety Observatory, retrieved November 28, 2008 from www.erso.eu.

Muhlrad, N, Gitelman V, Buttler I. (Ed) (2011) Road safety management investigation model and questionnaire, Deliverable 1.2 of the EC FP7 project DaCoTA.

OECD (2008). Towards Zero: Ambitious Road Safety Targets and the Safe System Approach. Organisation for Economic Co-operation and Development, Paris.

Papadimitriou, E., Yannis G., Muhlrad N., Gitelman V., Butler I., Dupont E. (Eds) (2012) Analysis of road safety management in the European countries, Deliverable 1.5 Vol.II of the EC FP7 project DaCoTA.

Papadimitriou E., Yannis G., (2013). Is road safety management linked to road safety performance?, Accident Analysis and Prevention, 59, pp. 593–603.