# ROAD SAFETY DATA AND KNOWLEDGE CENTRE PORTAL AND TOOLS

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1 Introduction

Africa is the worst performing continent in road safety. The mortality rate in Africa (26.6 fatalities/105 population) is almost three times that of Europe's, where the number of road fatalities represents 31% of the relevant global figure. However, the most disturbing concern is the fact that the disparity in road safety results seems to be increasing. Despite these pressuring and unfavourable potentials, several actions are already ongoing and important documents are already in place, paving the way for road safety improvements. Such an example is the African Road Safety Action Plan 2011-2020 developed by the common effort of the African Union (AU) and the United Nations Economic Commission for Africa (UNECA, 2010).

In order to improve road safety performance in African countries, many barriers need to be overcome. Within this context, Europe could play an important role in supporting African countries to improve their road safety and traffic management performance. Such considerations are addressed through the SaferAfrica project, aiming to create favorable conditions and opportunities for the effective implementation of road safety and traffic management actions in the African countries, by setting up a Dialogue Platform between Africa and Europe. Moreover, besides African governmental organizations, research institutions and NGOs, the involvement of a large number of African actors represented by prominent institutions operating in Africa ensures a mostly extensive coverage of the African continent.

Among the key objectives of the SaferAfrica project is the support of policy makers and stakeholders with evidence on critical risk factors, related actions and good practices drawn from high quality data and knowledge. For such an elemental provision the development of an African Road Safety Observatory is essential. The African Road Safety Observatory is structured using the relevant European Road Safety Observatory as reference, where certain adjustments have been taken into account in order to serve the specific needs of African stakeholders and the particularities of road safety problems in African countries. Moreover, the African RSO is integrated with crowdsourcing functions (i.e. functions/tools allowing the contribution of stakeholders to the development of the background), thus, delivering a “participative” environment between experts as well as end users.

The present Deliverable besides an overview of the African Road Safety Observatory describes specific integrations that were created within WP4 and WP2 of the SaferAfrica project for the development of certain knowledge and management tools as well as crowdsourcing functions. More specifically, the report focusses on tools, such as statistics, reports, fact sheets, as well as on the crowdsourcing functions, which allow the web portal to serve as a networking platform through which users could contact experts and other stakeholders, submit their own questions or data and exchange knowledge and experiences.
2 The African Road Safety Observatory

2.1 Scope and Objectives

The African Road Safety Observatory (African RSO) developed within the SaferAfrica project is a Pan-African Road Safety Data and Knowledge Centre aiming to support policy makers and stakeholders with evidence of critical risk factors and related actions and good practices on the basis of high-quality data and knowledge. The reference for this tool was the European Road Safety Observatory (ERSO), which was adjusted to the specific needs of African stakeholders, the particularities of road safety problems and the availability and quality of data in African countries. Furthermore, the African Road Safety Observatory was integrated with crowdsourcing functions to facilitate the participation of experts and end users.

The mission of the African RSO is to:

- Provide a tool for African citizens to highlight the relevant road safety needs, emerging road safety issues in a country and to make a proposal of measures or policies to enhance road safety;
- Monitor the existing strategies and implemented road safety policies in African countries;
- Provide a space for interaction with stakeholder and networking of relevant actors;
- Collect road safety data from various national and international (WHO, IRF) sources;
- Present the road safety situation and trends at national, regional and continental level through the use of text, graphs, tables and maps;
- Analyse data and provide recommendations to improve road safety in Africa;
- Promote road safety good practices to policy makers supported by proven efficacy and transferability assessment.

The African RSO is an ergonomic, user-friendly and efficiently designed web portal allowing for interaction with aim to highlight the relevant road safety needs in African countries. The African RSO was designed with an holistic approach, integrating all components necessary to support public and private road safety decision making in Africa, containing a wealth of knowledge and tools, such as statistics, reports, fact sheets, road safety courses, knowledge resources and links. Moreover, it is integrated with crowdsourcing functions, thus serving as a networking platform through which end-users could contact experts and other related stakeholders, submit questions or data, exchange knowledge and experiences. Additionally, the Observatory, through a reserved area, is designed as a tool for managing all the activities of the Dialogue Platform created by the SaferAfrica project and, in particular, for the consultancy of a Management Board as well as of a Stakeholders Group.

The African RSO started pilot operation already on month 19 and was subsequently opened to the wide public on month 22, well ahead of the initially scheduled operation for month 35. This early start of the African RSO operation allowed not only for highly useful feedback to be taken into account at the various updated versions of the system but also for gaining global recognition already during a quite long period within the project duration (36 months). Consequently, the African RSO delivered at the end of the project is not only a rich and highly performing system but also a well-established and useful observatory.
2.2 Structure

As already referred, the African RSO developed in order to support policy makers and stakeholders with evidence on critical risk factors, related actions and good practices drawn from high quality data and knowledge. In this framework, road safety data and safety performance indicators of African countries were collected and analysed.

The project activities are oriented to the “Safe System” approach and grouped in four pillars namely road safety knowledge and data; road safety and traffic management capacity review; capacity building and training; sharing of good practices. In order to develop an ergonomic, user-friendly and efficiently designed web portal, feedback in terms of information, data and findings from project tasks on these pillars are provided as well.

The African RSO is structured based on the following core sections:

- Home
- Dialogue
- Participate
- Knowledge
- Data
- SaferAfrica
- Contacts
- About

Every core section holds key resources in order to support the respective thematic field and bring together key publications and manuals that may be used by policy makers and stakeholders in Africa (e.g. ERSO resources and recommendations, WHO road safety manuals, OECD/ITF reports, African road safety publications, etc.).

A brief description of the core sections is provided in the following paragraphs. It should be noted that between these main sections there is a strong interconnection both in terms of the work carried out and the findings reached, although every core section belongs to a different work package of the SaferAfrica project.

2.3 Dialogue

In the "Dialogue Platform" (DP) section is dedicated to the high-level body that was established within the SaferAfrica project with the objective of providing recommendations to update the African Road Safety Action Plan and the African Road Safety Charter, as well as fostering the adoption of specific initiatives, properly funded. The platform works at two levels:

- A decision making level, run by a Management Board basing its actions on information provided and activities carried out by a technical level, with established Working Groups addressing specific topics. The Management Board was constituted by prominent institutions like EC, the African Union Commission, Financial Institutions, Regional Economic Communities (UN).
- The technical level involves government and research institutions, international organizations (e.g. NGOs) and representative organisations of stakeholders, with a fair balance between African and EU partners, even for what concerns responsibilities.
Each member of the Dialogue Platform has **unique access to the reserved area of the African RSO.** According to the different roles in the Dialogue Platform, the contents and the tools available in the reserved area are distinguished according to three user groups:

- Working Groups Member (mainly project partners);
- Stakeholders Group Member;
- Management Board Member.

### 2.4 Knowledge

The section of the **Knowledge** comprises documents, as a result of the SaferAfrica project, on three significant domains, i.e. Road Safety Management, Capacity Building, Good Practices, which are described further below.

#### 2.4.1 Road Safety Management

The “Road Safety Management” section is aimed at assessing the status of traffic and road safety management, with a view towards developing remedial and sustainable programs and actions to fundamentally improve traffic and road safety management. Relevant documentation concerning road safety management is provided. More specifically policy documents, legislation, strategies, guidelines and standards, annual reports, programmes, enforcement initiatives, management plans, development plans and any other relevant information facilitating the development of an initial benchmark.

More specifically, in the Road Safety Management section are included:

- **Capacity Reviews**: They are concise reviews, undertaken by a team of experts, which describe the road safety situation in African countries, with background statistics on road safety performance, as well as institutional management functions and strategic priorities for long-term investment strategy. Within the SaferAfrica project, 5 African countries were selected for this purpose, namely: Cameroon, South Africa, Kenya, Burkina Faso and Tunisia.
- **Road Safety Strategies**: National road safety strategies and action plans from African countries are available in this page.
- **Supporting Documents**: These documents are intended as resources, such as guidelines, handbooks and other supporting materials, aimed at providing guidance on the various areas of the road safety domain. The documents are divided in two categories based on their content, i.e. the African and international documents.

#### 2.4.2 Capacity Building

Another interesting section is the “Capacity Building”, which aims at identifying training, research and innovation needs of staff involved in road safety related activities and develop capacity building programs focused on road safety in African countries. African stakeholders must become owners of the problems and be responsible for developing and implementing the appropriate solutions with appropriate technical assistance, as necessary.

More specifically, Capacity Building includes the following sections:

- **Road Safety Courses**: e-learning modules for a basic curriculum for future African experts and professionals in the field of road safety are available.
SaferAfrica Webinars: A series of webinars intended for anyone involved in African road safety management, research and education (e.g. institutions, road safety professionals, academics, NGOs and policy makers) is included in this page. Eight webinars are available so far, concerning the SaferAfrica project, data collection and management, road safety data in Africa, vehicle standards in Africa, proposals for safer road users, safer roads and mobility, post-crash response and vehicles.

2.4.3 Good Practices
In the "Good Practices" section a collection of effective road safety measures and policies from African and global experiences are presented related to infrastructure, behaviour, vehicle and management points of view. A systematic analysis of African good practice measures is carried out and both successful and non-successful solutions are outlined interactively at both measure grouping (infrastructure, behaviour, vehicle, management) as well as geographical level (country, region and continent).

Special emphasis is given to identify and highlight road safety measures and policies which have shown high potential for casualty reductions in African countries, as reported through various documents (e.g. mid-term review of the African Action Plan), in order to be further supported and potentially implemented in other countries as well.

2.5 Data
Among the most important contents of African RSO is the Data section, where a variety of information related to road safety is provided; namely, road accident, fatality and injury data (comprehensive database), survey collected data, statistics tables and statistics resources. Data is divided in the following sections:

- **Statistics**: Data on road accident fatalities and fatality rates per population, economic and motorization level and policy performance (including data and information for the five pillars of WHO) for the African countries are shown in interactive maps and figures, while data are also available in tables. Additionally, static infographics that can be downloaded summarize the main statistics of the road safety performance in the African countries.
- **Analysis**: The section of the analysis includes the thematic fact sheets, country fact sheets and the annual statistical report developed within the SaferAfrica project. Additionally, the methodology with the basic guidelines concerning the road accident data collection in the African countries is available within this section.

2.6 SaferAfrica
This section comprises of the deliverables of the SaferAfrica project, with special emphasis on the following four pillars; namely, road safety knowledge and data, road safety management, capacity building and training, and sharing of good practices. Moreover, information and results from the workshops held within the context of the project are also provided.
3 Development of Knowledge and Management Tools

3.1 General

On the basis of the results of the analyses, existing knowledge and management tools from the literature, a set of knowledge and management tools were developed to support stakeholders, policy makers and other users of the African RSO in obtaining evidence-based views of road safety problems and challenges, as well as insights for potential actions and priorities. The developed tools include:

- A background database with data and information on accident statistics, road safety policy framework and performance of the African countries
- Interactive figures and maps supported by the database
- Statistical reports and fact sheets

3.2 Data Collection

Reliable and accurate data are a fundamental prerequisite to understand the magnitude of road safety problem in Africa and convince stakeholders to take certain actions. Reliable and accurate data are also needed to identify problems, risk factors and priority areas in order to formulate strategies, set targets and monitor performance. For the needs of the African RSO, first, a dedicated database was developed, which was used as the basis for the development of all tools within the data section of the African RSO. In terms of existing international road safety databases, analysis documents from two main sources were exploited; namely the World Health Organisation (Global Status Report on Road Safety, 2015; Global Status Report on Road Safety, 2018) and the IRF World Road Statistics reports (editions of 2013, 2017 and 2018).

It is widely known that in African countries there is a serious lack of available road safety data. Regarding fatality data, only few countries dispose suitable time series which are limited for the latest available decade 2006-2015 and less than half African countries have available data for more than 5 years. However, the greatest lack in data concerns risk exposure and safety performance indicators, for which very limited countries have collected such information. Even when data are available, for example through international databases, little is known about data collection systems, data definitions, etc.

Unfortunately, the varying quality of data collection process among the African countries is not the only barrier that makes impossible a direct data comparison. Another issue of concern is the comparability of data and the potential of using different databases in a complementary way. For example, concerning the fatality data, the review of the existing data sources, held within the SaferAfrica project, revealed that different definitions are used among the countries. On the other hand, the two main data sources, i.e. WHO and IRF-WRS, dispose fatality data, which are differently defined and measured among the African countries. Thus, the data cannot be comparable among the countries, without being processed before, and attention is needed when combining the two databases.

As an initial approach, existing national data were gathered, assessed and processed to improve their quality. However, safety data should be enhanced through additional data and indicators, which may be available at the individual country level but are not currently published (e.g. exposure
data, road safety performance indicators, road safety management, etc.). Moreover, it was essential to convey a clear view of current road safety practices followed in Africa by assessing the needs of road safety stakeholders in African countries in terms of knowledge, data and information tools, and deliver concrete data and information to be accessible by all stakeholders involved in road safety.

Towards this direction, within the SaferAfrica project two relevant surveys were undertaken (a short questionnaire, followed by an extensive survey where stakeholders from 20 and 21 countries respectively delivered feedback) in order to assess the current situation of Africa in terms of road safety data collection systems and definitions. It should be noted that the road safety issues raised in both surveys and mostly the contents of the extensive one were not confined to the data assessment approach, since more road safety fields, such as management practices, were tackled as well and the respective findings were addressed accordingly.

Through these surveys, a number of the questioned issues for many African countries were collected for the first time which can be very useful to road safety decision-makers for future actions. Based on the stakeholders’ responses, the results revealed that there is a significant demand for data and knowledge in order to be used for road safety-related decision making.

As a final step, data were analysed to provide a factual appraisal of road safety level in Africa, reveal critical issues and indicate priority areas with high potentials for road safety improvement. Such analyses include a variety of statistical reports and fact sheets and are presented through tables, graphs, or combined infographics, which the user may view interactively, in terms of navigation per country, region, or the entire African continent.

### 3.3 Statistics

Based on the database developed within the SaferAfrica project, key data elements covering all road safety pillars are available in the statistics section of the African RSO. The data and information gathered are presented not only in tables, but also through interactive maps and figures. The users of the observatory can, thus, obtain an overall picture of the road safety situation in Africa for each thematic area, while by using the available filters, they are also able to retrieve the respective information only for the countries they are interested in. Consequently, a comparative picture of the performance of the African countries and/or regions in each thematic area can also be obtained.

Additionally, a set of interesting, eye-catching Infographics was created in order to enhance the presentation of the information/data collected. All Infographics consist of four or five items, which highlight the most significant issues and provide a broad overview of current and past road safety situation in Africa. It is noted that they can be downloaded and reused by the users of the Observatory.

The data that are available within this section come from the published reports of the WHO, which was selected as the main data source, since it is the only source with the most available data covering all road safety pillars. Additionally, due to the common methodology and procedure of data collection, quality control and process used by the WHO, the fatality data presented could be considered comparable among the different countries. Other sources used were the United Nation database, the World Bank database and the IRF-World Road Statistics reports.
The section of the statistics, thus, includes the following thematic categories and indicators:

- **Final Outcomes**
  - Reported fatality rates per population, 2010 and 2013
  - WHO estimated fatality rates per population, 2010 and 2013

- **Policy Context**
  - Per capita Gross National Income (\$)
  - Number of registered vehicles
  - Total population 2013 - Estimates (UN, 2017)
  - Figures showing the relationships among the context variables

- **Policy Performance**
  - Road Safety Management (including 7 indicators)
  - Safer Roads and Mobility (including 5 indicators)
  - Safer Vehicles (including 5 indicators)
  - Safer Road User
    - Helmet Use (including 4 indicators)
    - Seat Belts & Child restraints (including 3 indicators)
    - Speeding (including 1 indicator)
    - Alcohol (including 3 indicators)
    - Mobile Phone Use (including 1 indicator)
    - Post-Crash Response (including 4 indicators)

- **Infographics**
  - Road fatalities by transport mode
  - Safety devices use
  - Estimated Fatality Rates
  - Road Fatalities by Gender in Africa

*Figure 1: Indicative page with interactive maps and figures*
3.4 Statistical Reports and Fact Sheets

On the basis of the experiences of partners from the ERSO and the IRTAD, as well as WHO status reports, seven thematic fact sheets on risk factors emerging from the results of the analyses and ten enhanced country fact sheets were produced. An Annual Statistical Report was also produced in order to summarise the main figures.

3.4.1 Annual Statistical Report

The Annual Statistical Report provides the basic characteristics of road accidents in African countries for the decade 2007-2016. The Report consists of tables and figures on the following major topics:

- **Road accidents**
  - Number of road accidents by country and percentage change for the period 2007-2016

- **Road accident injuries**
  - Number of injured persons in road accidents and percentage change for the period 2007-2016

- **Road accident fatalities**
  - Evolution of road accidents fatalities and fatality rates in Africa, 2007-2016

- **WHO Fatalities 2016**
  - Reported and Estimated number of fatalities and fatality rates per million population in 2016 or the latest available year

- **Gender**
  - Distribution of road accident fatalities by gender and country in 2016 or the latest available year

- **Transport mode**
  - Distribution of road accident fatalities by transport mode and country in 2016 or the latest available year

Data related to road accidents were retrieved from the IRF World Road Statistics and WHO reports on road safety. During the development of Annual Statistical Report, some problems related to data availability were encountered. First of all, data were not available for all countries and for the whole examined period, especially for the latest year included in the Annual Statistical Report. All such issues were treated in the most appropriate way.
3.4.2 Thematic Fact Sheets

The analysis of the data in African region based on the established literature related to road safety risk factors delivered the following thematic topics for developing knowledge and management tools in the form of fact sheets:

- **Gender**
  - Gender & Road Safety
  - Background
  - Accessibility & Transport Choice
  - Exclusion by Design
  - Affordability
  - Designing for Mobility Needs & Travel Patterns
  - Designing for Safety
  - Designing through Inclusive Planning
  - Designing through Water, Sanitation and Hygiene (WASH) lenses

- **Road User Behaviour**
  - Introduction
  - Road Safety Performance
  - Enforcement
  - Road User Groups
  - Speed
  - Alcohol
  - Protective systems: PTW helmets, seatbelts and child restraint
  - Protective system laws

- **Infrastructure**
  - General
  - Road Network characteristics
  - Road Safety Performance

- **Vehicle**
  - General
- Fleet characteristics
- Road Traffic deaths
- UN (ECE) or equivalent FMVSS Vehicle Regulations

- **Post-Crash Care**
  - General
  - Emergency care characteristics
  - Emergency care Key Performance Indicators

- **Road Safety Management**
  - General

- **Legislation**
  - General
  - Road Safety Management
  - Vehicles
  - Infrastructure
  - Road User Behaviour
  - Enforcement

The Thematic Fact Sheets were developed based on the analysis for the identification of key risk factors affecting road safety in African countries, that was held within the SaferAfrica project. The analysis of the data led to the identification of five key risk factors, i.e. Road User Behaviour, Infrastructure, Vehicle, Post-crash Care, Road Safety Management. Basic descriptive statistics and key analysis results that were revealed by the aforementioned analysis are presented in a more concise and attractive manner through the Thematic Fact Sheets.

The Thematic Fact Sheets were prepared using similar structure with particular focus on the use of most recent available data and information. As it has been also reported previously for the Annual Statistical Report, some problems related to data availability were encountered during the preparation of the Thematic Fact Sheets. However, all these issues were overcome with the most appropriate way, taken into account the particularities of each thematic area. Each Thematic Fact Sheet could allow for the identification of priority areas for road safety action and intervention in each region, with emphasis being given on those with high road safety improvement potential. The Thematic Fact Sheets can also serve as a tool for the comparative assessment of the road safety level in African countries.
3.4.3 Country Fact Sheets

The Country Fact Sheets were prepared using the same structure with particular focus on the use of most recent available data and information. The ten selected countries for the Country Fact Sheets were Angola, Benin, Burkina Faso, Cameroon, Egypt, Kenya, Morocco, South Africa, Tunisia and Uganda. These countries were selected in order to cover representatively all African regions (Northern Africa, Eastern Africa, Central Africa, Southern Africa and Western Africa). The structure of the Country Fact Sheets consists of the following sections:

- **Country characteristics**
  - General characteristics (Population, Area, Average temperature in capital city, Annual precipitation level, GDP per capita (2010 US$), Vehicles per thousand population, Road network, Percentage of paved roads, Population density, Road network density, Percentage of urban population, Percentage of population aged <15y.o., Percentage of population aged > 65y.o.)

- **Road Safety Management**
  - Road Safety Lead Agency
  - National Road Safety Strategy
  - National Road Safety Targets
  - NGOs actively promoting Road Safety
  - Allocation of revenues from Road Safety measures to Road Safety interventions
  - Existence of national budget for Road Safety
  - National Observatory centralizing the data systems for Road Safety

- **Infrastructure**
  - Speed limits for passenger cars by type of road (urban, rural, motorways)
  - Road Safety Infrastructure management (Road Safety Audits are required for new roads, Road Safety inspections are performed on existing roads)

- **Traffic Legislation**
  - Drink-driving (Existence of drink-driving law, BAC limit - general population, BAC limit – young/novice drivers, BAC limit – professional drivers, Random breath testing)
- Protective systems (Existence of seat belt law, Seat-belt law applies to all occupants, Existence of child-restraint law, Existence of helmet law)
- Mobile phone (National law on mobile phone use while driving, Law prohibits hand-held mobile phone use, Law applies to hands-free phones)
- Assessment of traffic law enforcement (Speeding legislation, Drink-driving legislation, Seat-belt use legislation, Helmet use legislation, Child restraint legislation)

- **Safety Performance Indicators**
  - Use of safety devices (Seat-belt wearing rate, Helmet wearing rate, Child restraint use rate)
  - Drink-driving (Percentage of road accident fatalities attributed to alcohol)
  - Post-crash care (Physicians per thousand population, Nurses and midwives per thousand population, Hospital beds per thousand population, Percentage of injured persons attributed to hospital by ambulance)

- **Road Safety Outcomes**
  - Road traffic fatalities (Number of road traffic fatalities, Fatality rate per 100,000 population, WHO estimated road traffic fatalities, WHO estimated fatality rate per 100,000 population, Distribution of road traffic fatalities by gender, Distribution of fatalities by transport mode)

- **Basic Remarks**

A variety of sources was used for retrieving the required data and information. Indicative sources are the published reports on road safety of WHO, World Bank database, as well as national sources and databases. During the development of the Country Fact Sheets, some problems with the data availability were encountered. Consequently, the latest available data were used, while in some cases there were no data available.

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**Figure 5: Indicative cover pages of the Country Fact Sheets**
4 SaferAfrica Crowdsourcing Tools

4.1 General
A useful alternative in order to collect information for the road safety situation and needs of a country, especially when there are no much available data or of good quality, is collecting feedbacks, opinions and perspectives on road safety needs country from the citizens of the country. For this purpose, a wide range of audiences was engaged within the SaferAfrica project, which can be differentiated into 3 main target groups (Tegas, V; De Angelis, M; Tripodi, 2016):

- The primary target group, which gathers scientific, technical and institutional end users within the project and on the Dialogue Platform.
- The secondary target cluster, which includes national and international authorities, decision makers, policy makers and funders (national authorities in Africa, international bodies like World Bank, African Development Bank and Islamic Development Bank).
- The last target group, which corresponds to the society in general. This means that the awareness about the project should be promoted so that all the citizens can be informed, involved and engaged.

The planned crowdsourcing action of the SaferAfria project aims to address general (country level) needs and problems of African citizens and more specifically to:

- collect opinions and road safety needs of an African country from African citizens;
- report general road safety issues at country level;
- propose ideas to improve road safety in the country of origin.

The following four crowdsourcing tools were developed within the SaferAfrica project, which are described further in the following sections:

- Reporting Tool
- Surveys
- Dialogue Platform
- Webinars

4.2 Reporting Tool
Crowdsourced data can be in terms of perceived road safety issues, needs and suggestions to improve road safety in a country. The reporting tool of the African Road Safety Observatory is targeted to African citizens and road safety stakeholders, it is provided in three languages (English, French and Portuguese) and can be easily reached by both desktop and mobile devices (tablet or smartphone) using an internet connection to get the largest number of users. Participation is promoted by dissemination through social media campaigns and the active involvement of African road safety stakeholders.

After registering into the portal, anyone can report a road safety problem or propose a solution to improve road safety in his/her country by locating a placeholder onto the African map. Proposals and reports are classified in five main categories according to the five pillars of the African Road Safety Action Plan (AU-UNECA, 2010): Road Safety Management, Unsafe Roads, Unsafe Vehicles, Risk behavior of road users, Poor post-crash care.
All reports are mapped and published in a dedicated section, so that they can be easily explored through filters, moreover users can also leave comments stimulating the discussion on proposals and reports left by other users.

![Figure 6: Crowdsourcing reporting form](image)

### 4.3 Surveys

The web surveys are more specifically targeted to African road safety stakeholders since, in most cases, they require a background in road safety topics. Surveys covered various thematic areas, for instance, recommendations to be adopted within the African Road Safety Action, data collection priorities, travel habits and transferability of international road safety good practices in African countries.

After developing a survey questionnaire, this is then embedded in a dedicated page of the African RSO. Survey questionnaires can be accessed in several ways: through a related Consultation space in the Dialogue Platform web tool (see next chapter), by providing the page link to potentially interested stakeholders by e-mail or sharing it on social media. Anyone who visits the page can fill out the questionnaire. After the end of the survey/consultation answers data are easily exported on a spreadsheet through the Google Form functionality and then analysed.
4.4 Dialogue Platform

The Dialogue Platform represents a high-level body aimed at:

- encouraging and facilitating a constructive engagement and dialogue of citizens, policy makers, researchers and other stakeholders on road safety in Africa.
- producing knowledge to influence road safety funding, policies and interventions in Africa

The Dialogue Platform is structured by a decision-making level comprising a Management Board of prominent institutions like the African Union, the United Nations and development banks and a technical/operational level comprising government institutions (both European and African), international institutions, research institutions (both European and African), while more than 190 African stakeholders coming from 54 African countries are participating.
The **Management Board** is composed by high level members, including ten top-level international Institutions, active in the field of road safety, namely European Commission, World Bank, African Development Bank, Federation Internationale de l’Automobile (FIA), United Nations Economic Commission for Africa (UNECA) World Road Association (PIARC), World Health Organization (WHO), International Road Transport Union (IRU), International Traffic Safety Data and Analysis Group (IRTAD).

The **technical/operational level** is organized in Working Groups (WGs) representing African lead agencies, other key stakeholders and the SaferAfrica project team. The representatives are decision makers at a policy making level and involved in road safety activities not only at a country level but also regionally (e.g. SADC/ECOWAS etc.). Through the Working group, dialogue and regular contact among lead agencies, research institutions and other key entities can be stimulated and encouraged.

These two levels are closely interconnected to foster the appropriate match between African road safety policy evolution, application, knowledge enhancement, and institutional delivery capacity. The activity of the Platform also focuses on the **reinforcement of the endogenous African capabilities through the dissemination of the EU knowhow**. The Dialogue Platform is operating through periodic workshops (twice per year) and online thanks to the Dialogue Platform web tool hosted in the African RSO. Additionally, a Platform Secretary oversees the coordination of all the activities and the interactions between the various levels.

The interactions in the Dialogue Platform web tool **works especially with consultations**. A consultation can be a virtual discussion area on a specific topic, a survey or an interest or consultation group on a specific topic. For every consultation, it is possible to invite multiple users (MB members and/or stakeholders) and define specific access rights and rules. Usually, a consultation is defined by a target audience, a consultation period, an objective/discussion topic and a description about how to participate in the consultation. Once joined to a consultation space a user can work on projects, discuss topics or just share information with other users by posting, commenting, following and connecting with other DP users. Two consultations were launched in the platform: Consultation on Road Safety Data Collection in Africa and Consultation on Recommendations to improve Road Safety in Africa. The first survey relates to a number of recommendations that should be adopted by African countries to improve the existing road safety data collection systems. The second one relates to a number of recommendations possibly to be adopted within the African Road Safety Action Plan, reported in SaferAfrica deliverable D3.1 Assessment of the Action Plan and of regional instruments (Mignot et al., 2018).

### 4.5 Webinars

Webinars have also been developed in order to **promote in a relatively short time period (30 minutes) SaferAfrica key findings**, so as to foster the dialogue with the experts and the African stakeholders. Participation to webinars is open by registration to the event in a dedicated page of the African RSO web portal. Each webinar consists of a presentation of a specific topic followed by a question & answer session. Users are also able to continue the discussion through the Dialogue Platform or within the African RSO web site. So far, four webinars have been delivered and further 5 webinars are planned. Among the topics discussed there are:
- existing methods of road safety data collection (best practices, methods, and tools), drawn awareness to the discrepancies often found between official national data and WHO estimates, and provided suggestions on how to bridge these.
- "Road Safety Data in Africa" including SaferAfrica recommendations and guidelines for a minimum set of harmonized road safety data collection procedures and standard definitions aiming to improve African data collection systems.
- "Vehicle standards, an approach for Africa" dealing with the impact of the vehicle fleet to road safety and the importance of international frameworks on vehicle standards to improve the fleet.

All the SaferAfrica Webinars delivered up to now are available on the African Road Safety Observatory.
5 Conclusion

One of the main results of the SaferAfrica project is the development of the African Road Safety Observatory, a Pan-African Road Safety Data and Knowledge Centre which aims to support policy makers and stakeholders with evidence of critical risk factors and related actions and good practices on the basis of high-quality data and knowledge. The development of the tool was based on the European Road Safety Observatory (ERSO), which, however, was adjusted to the specific needs of African stakeholders and the particularities of road safety situation and data availability in African countries.

The African RSO is an ergonomic, user-friendly and efficiently designed web portal, which includes various knowledge and tools, such as statistics, reports, fact sheets, knowledge resources and links. A background database has been developed, exploiting all available data from various international data sources. Based on the data collected, interactive maps and figures are available in the African RSO, with key road safety data and information for the African countries, while the analysis of these data led to the development of a series of thematic fact sheets and country fact sheets.

Another asset of the African RSO is that it is integrated with crowdsourcing functions, allowing thus the participation and the interaction of end-users, road safety experts and other related stakeholders. Four significant crowdsourcing tools have been created for the collection of data and perspectives on road safety issues by both experts and citizens of the African countries. Among these functions, a reserved area is also included in the observatory, which serves as a tool for managing all the activities of the Dialogue Platform.

Both knowledge and crowdsourcing tools should be updated regularly, in order to provide the users of the observatory with the most recent and relative data and knowledge. Additionally, both the African RSO and the Dialogue platform are anticipated to act as individual and stable bodies, capable of operating efficiently beyond the end of the SaferAfrica project.

The African RSO is open to the wide public already for 22 months (well ahead of the initially schedule) and today it is a well-established and reference road safety observatory with global recognition. The contribution of the African RSO is expected to be of very high value for the improvement of road safety in Africa, by creating the necessary capacity and motivating all public and private stakeholders for serious and continuous efforts for road safety improvement in all African countries.

The key future challenges for the further development and operation of the African Road Safety Observatory can be summarised as follows:
- Develop strategies to systematically improve road safety management
- Improve evidence based decision making in Africa through better safety data and knowledge
- Adapt the principles of the Safe System approach in Africa
- Unite all African countries in realizing the importance of road safety, by setting common strategies and targets
- Increase the awareness of African stakeholders, policy makers and end users on road safety
6 References


Annex 1. List of Abbreviations

<table>
<thead>
<tr>
<th>Abbreviation</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>AU</td>
<td>African Union</td>
</tr>
<tr>
<td>EC</td>
<td>European Commission</td>
</tr>
<tr>
<td>EU</td>
<td>European Union</td>
</tr>
<tr>
<td>IRF</td>
<td>International Road Federation</td>
</tr>
<tr>
<td>IRTAD</td>
<td>International Road Traffic Accident Database</td>
</tr>
<tr>
<td>UNECA</td>
<td>United Nations Economic Commission for Africa</td>
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<tr>
<td>WRS</td>
<td>World Roads Statistics</td>
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<td>WHO</td>
<td>World Health Organisation</td>
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</tbody>
</table>
Annex 2. African RSO presentation
The SaferAfrica
African Road Safety Observatory

George Yannis, Stergios Mavromatis, Katerina Folla, Dimitris Nikolaou
NTUAthens

Co-funded by the Horizon 2020 Framework Programme of the EU under Grant Agreement No 724029
Road Safety in Africa (1/2)

Africa presents the highest traffic fatality rates globally, with almost 3x higher fatality risk than Europe.

Source: WHO 2018
More than half of all fatalities in the world concern VRUs (motorcyclists, cyclists, pedestrians).

The African Region has the highest proportion of pedestrian and cyclist fatalities (44%) of all road traffic deaths.

This is partly attributed to the fact that walking and cycling are important means of transport in Africa.

Source: WHO 2018
Why SaferAfrica?

- **300,000** traffic fatalities and over **5mil.** injured per year

- Opportunity to **exchange** information and experience between Europe & Africa

- **Assist** with evidence and data gathering
- **Strengthen** capacity and **identify** training needs
- **Transfer** and **share** good practices
The SaferAfrica Project

- **Funded** under the Horizon 2020 Mobility for Growth (MG-3.6-2016 – Euro-African initiative on road safety and traffic management)

- **Title:** SaferAfrica - Innovating Dialogue and Problems Appraisal for a Safer Africa

- **Duration:** 36 months (Oct 2016 – Sep 2019)
- **Project Leader:** University of Roma – La Sapienza
# Project Partners

<table>
<thead>
<tr>
<th>Participant Organisation Name</th>
<th>Country</th>
</tr>
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<tbody>
<tr>
<td>Research Centre for Transport and Logistics (CTL) - Coordinator</td>
<td>Italy</td>
</tr>
<tr>
<td>National Technical University of Athens (NTUA)</td>
<td>Greece</td>
</tr>
<tr>
<td>Belgian Institute for Road Safety (IBSR)</td>
<td>Belgium</td>
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<tr>
<td>International Road Federation (IRF)</td>
<td>Switzerland</td>
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<tr>
<td>IFSTTAR</td>
<td>France</td>
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<tr>
<td>Loughborough University (LOUGH)</td>
<td>UK</td>
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<tr>
<td>National Laboratory of Civil Engineering (LNEC)</td>
<td>Portugal</td>
</tr>
<tr>
<td>Institute of Road Safety Research (SWOV)</td>
<td>Netherlands</td>
</tr>
<tr>
<td>SITRASS</td>
<td>France</td>
</tr>
<tr>
<td>Agency for the Promotion of European Research (APRE)</td>
<td>Italy</td>
</tr>
<tr>
<td>Vehicle and Traffic Safety Centre (SAFER)</td>
<td>Sweden</td>
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<tr>
<td>National Advanced School of Public Works (ENSTP)</td>
<td>Cameroon</td>
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<td>Handicap International (HI)</td>
<td>Belgium</td>
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<td>Abidjan – Lagos Corridor Organisation (OCAL)</td>
<td>Benin</td>
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<td>ICI-Santé (ICI)</td>
<td>Burkina Faso</td>
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<tr>
<td>International Motor Vehicle Inspection Committee (CITA)</td>
<td>Belgium</td>
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</table>
SaferAfrica Objectives

- Create **favorable conditions** and opportunities for the **effective implementation of actions and knowledge** for road safety and traffic management in African countries by setting up
  - Dialogue Platform between Africa and Europe
  - African Road Safety Observatory (African-RSO)
SaferAfrica Overall Concept

- Institutional level
- Technical level
- Both levels closely interconnected
  - Foster the appropriate match between African road safety policy evolution
  - Enhance knowledge
  - Deliver institutional capacity
African-RSO vs SaferAfrica

- **Solid interconnection**
- Continuous **update** from the project’s
  4 core pillars (4 WPs)
  - Road Safety Knowledge & Data
  - Road Safety & Traffic Management Capacity Reviews
  - Capacity Building & Training
  - Sharing Good Practices

based on
- Work carried out
- Findings reached
African-RSO Objectives

• Provide a **tool** for African citizens to highlight the relevant road safety needs
• **Monitor** existing strategies and implemented road safety policies in African countries
• Provide a **space for interaction** with stakeholders and networking of relevant actors
• **Collect** road safety data from various national and international (WHO, IRF) sources
• **Present** the road safety situation and trends at national, regional and continental level
• **Analyze** data and provide recommendations to improve road safety in Africa
• **Promote** road safety good practices to policy makers through proven efficacy and transferability assessment
African-RSO Design

- Modern **web-based** tool
- Highly **ergonomic** interface
- **Simple** structure
- Documented information
- Continuously **updated**
African-RSO Users

- Public authorities
  local, regional, national
- Road safety experts
- NGOs
- Mass Media
- End users
African-RSO Structure

- Home
- Dialogue
- Participate
- Knowledge
- Data
- Contacts
- About

www.africanroadsafetyobservatory.org
African-RSO Dialogue Platform

- Encourage constructive engagement and dialogue of citizens, policy makers, researchers and other stakeholders
- Produce knowledge to impact road safety funding, policies and interventions in Africa

- Management Board
  - Institutions and competent authorities at country and continent levels tackling regulatory, financing and planning concerns

- Stakeholders Group
  - External partners constituted by African public bodies, international research institutions and NGOs
  - Consultative project body aimed to strengthen the compliance between the project and the needs of the society

- Useful Links
African-RSO Participate

- **Crowdsourcing tool**
  - Reporting of road safety problems
  - Proposing solutions

- **Surveys**
  - Links to information on SaferAfrica surveys and their results
African-RSO Knowledge

• Road Safety Management
  – Capacity reviews
  – Road safety strategies
  – Supporting documents

• Capacity Building
  – Road safety courses
  – SaferAfrica webinars

• Good practices
  – Global and African measures, policies

• Multimedia library
African-RSO Data

• **Statistics**
  - Final outcomes
  - Policy context
  - Policy performance
  - Infographics

• **Analysis**
  - Data collection
  - Factsheets
    - Country
    - Thematic
  - Under-reporting
African-RSO Contacts

• African

• International
African-RSO vs European-RSO

- European-RSO serves as reference, but **fine-tuned**
  - Specific needs of African stakeholders
  - Particularities of road safety problems
  - Availability and quality of data in African countries

- African-RSO is **integrated** with crowdsourcing functions
  - Facilitate the participation of experts and end users
African-RSO Challenges

- Develop **strategies** to systematically improve road safety management
- Improve evidence based decision making in Africa through **better safety data** and knowledge
- Adapt the principles of the **Safe System approach** in Africa
- Unite all African countries in realizing the importance of road safety, by setting **common strategies and targets**
- Increase the **awareness** of African stakeholders, policy makers and end users on road safety
The SaferAfrica
African Road Safety Observatory
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