

Towards an enhanced Africa-EU Cooperation on Transport and Connectivity

Report by the Task Force on Transport and Connectivity

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Foreword

The Africa-Europe Alliance for Sustainable Investment and Jobs was launched by the European Commission in September 2018, as an effort to drive forward intercontinental cooperation on an equal footing. The African Union and the European Union are committed to strengthening a mutually beneficial partnership.

The launch of the Alliance is a clear sign of the enhanced way Europe and Africa work as partners, with a strong focus on economic potential, and including the mobilization of the private sector. Within the framework of the Alliance, Europe and Africa are discussing our common challenges and exploring mutual opportunities. Among the specific actions triggered by the Alliance, four thematic task forces were set up to focus on digital economy, energy, agriculture and transport.

Strengthening transport connectivity between Africa and the EU and within Africa is among the key objectives, which ultimately envisages provision of sustainable, credible and viable investment in efficient and sustainable transport infrastructure, providing safe and intermodal mobility.

Transport connectivity between Africa and Europe should also refer to the establishment of transport networks at continental, regional and national levels. Continents, their economic sub-regions and their nations can only reap the full benefits of globalization when they are connected through permanent and highly advanced transport linkages.

During the first six months of 2019, the discussions held within the Transport Task Force (TTF) paved the way for a final report illustrating the key challenges, and suggesting actions aimed to achieve sustainable and efficient connectivity – which must also be people-friendly. Work was conducted in the three clusters, addressing from different perspective and as regards different transport modes, the importance of achieving sustainable and efficient connectivity:

- 1) Aviation, which is of course essential for African connectivity.
- 2) Road safety that represents a big challenge at global and regional level.
- 3) Sustainable connectivity infrastructure in line with international standards.

The purpose of the Transport Task Force was to guide the EU and African Union in prioritising actions for cooperation. With this aim, this Task Force provided a platform of partnership for the private sector, donors, international organisations, financial institutions and civil society based on a shared understanding of how an Africa-Europe strengthened Transport Connectivity network can achieve cross-border integration, accelerate sustainable development and bring benefits to all citizens.

We are proud of the true spirit of cooperation, the active engagement of all participants, and the high quality of reports achieved. The results of work under the Transport Task Force are providing an important contribution to the EU's upcoming comprehensive strategy on Africa, Europe's close neighbour and most natural partner, and also a continent full of opportunity and potential for cooperation.

European Commissioner for Transport, Adina Vălean

European Commissioner for International Partnerships, Jutta Urpilainen

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Executive Summary

Connectivity has become a defining feature of the modern economy and has become of major geostrategic importance for trade, growth and the economy overall. By 2030, passenger traffic is set to increase by 50 percent and freight volumes by even 70 percent. For Africa alone, annual investments needs for infrastructure development is estimated at more than \$130 billion and in particular, for this continent, connectivity is crucial in view of its highest number of landlocked countries. The lack of territorial access to the sea and the remoteness from world markets are significant obstacles for many African development efforts. Inter- and intra-African trade not only suffers from incomplete transport networks and low performances and maintenance, but also from sector inefficiencies related to governance, regulatory, investment and institutional matters. Further, the air transport sector remains underdeveloped and is affected by low safety standards and by the limited liberalisation of air space across countries. For land transport, a major concern remains road safety with Africa having 16% of the world's road fatalities with only 12% of the population and only 2% of the world's vehicles. All of these factors are having the large potential to undermine the continents endeavour to engage into Africa Continental Free Trade Agreements with the aim to boost intra-African trade, growth and job creation. Engaging into a holistic and strategic response for enhanced transport connectivity is thus required - a response that goes beyond the traditional challenges and integrates low emission and green transport solutions within an overarching approach.

In light of the above, the European Union and the African Union launched in early 2019 the **Africa-Europe Alliance Transport Taskforce** to exchange views and deliver recommendations to enhance transport cooperation. The Taskforce, consisting of three clusters (Connectivity and Infrastructure, Road Safety and Aviation), held various meetings from January to July 2019 to deliver tailor-made recommendations involving countries, international organisations, stakeholders, civil society, donors and international financial institutions.

Former European Commissioners for Transport and Mobility, Ms Violeta Bulc and for International Cooperation and Development, Mr Neven Mimica, together with the African Union Commissioner for Infrastructure and Energy, Dr. A. Abou-Zeid, co-chaired the Task Force and the last high-level meeting on 25 July 2019.

This report consolidates the three clusters recommendations, providing a general context overview and reflecting on initiatives to promote cooperation in transport as a whole.

On **Connectivity and Infrastructure**, the report builds its recommendations along the key pillars of sector policy and sector sustainability, smart and multi-modal corridor development and investment promotion. Key recommendations include the need to engage into quality infrastructure delivery and investments (“value for money”) and address policy, strategy and regulatory reforms from a full life-cycle perspective and *vis-à-vis* economic, social and environmental (climate change) sustainability dimensions. This will fundamentally support the creation of enabling sector, incentivise involvement of the private sector and scale-up the innovative funding needed. The report further highlights the need to move towards integrated, smart, multi-modal corridor approaches with the objective to reap the full potential of digitalisation as well as linking urban corridors to such concepts.

On **Road Safety** the report brings forward thirteen concrete recommendations to reduce road crash injuries, the 8th leading cause of death globally and the lead killer of young people aged between 5 and 29 years. African road traffic death rates are the highest globally and more than four times higher than the European average. The recommendations address five main priority areas, namely road safety management and data collection, infrastructure safety, vehicle safety, safety of road users and post-crash care. Key recommendations include the creation of an African Road Safety Observatory to foster cooperation and generate a robust body of road safety data, the

ratification of the African Road Safety Charter and the UN Road Safety Conventions, the development of national lead agencies, safety ratings of new and existing roads, applying harmonised vehicle standards and the establishment of a reliable system for vehicle inspections. The report also highlights the need to empower vulnerable road users, to ensure strong and consistent enforcement by traffic police, and to put in place effective driver training and post-crash care initiatives.

On **Aviation**, the report includes ten initiatives to unlock economic growth and foster air mobility in Africa, reflecting on the challenges and opportunities to make this a reality. Africa's main challenge is the lack of effective air connectivity among countries in the continent. The initiative to launch a Single African Air Transport Market (SAATM), a common African aviation market, presents a possibility to increase connectivity, enforce social cohesion, open markets and enhance a sustainable development of African airlines. Overall, the report underlines the main measures to view aviation as a national priority, overcome infrastructure challenges (lack of funding and access), emphasizes the role of safety and security and reflects on the need of an efficient air transport management. The report highlights the need to have a strong Executive Agency able to implement the Single African Air Transport Market (SAATM). The report also features initiatives to increase capacity building, to harmonise taxes, fees and charges as well as overcoming nationals' carriers reluctance to liberalise the aviation market and calls for an improvement on visa regimes.

Introduction

The population of Africa increased from about 814 million in 2000 to about 1.3 billion today and is expected to surpass 2 billion by 2040. The population growth has occurred in same case at annual rates above 3%. The region's GDP in current prices stood at US\$1.67 trillion in 2017, having more than doubled since 2005. Average GNI per capita in current prices increased from about US\$550 in 2000 to over US\$1,500 today. However, per capita incomes vary widely across the region, from less than US\$250 in South Sudan to over US\$10,000 in Mauritius and the Seychelles.¹

Despite significant progress, Africa has a long way to go in the fight against extreme poverty. Average poverty and extreme poverty rates across Africa have seen impressive reduction over the last few decades; however, the region remains home to more than half of the world's poor, exceeding 410 million, and in individual countries, the inequality between the poorest 40% and the rest has grown in recent years. Employment in low-productivity, informal agricultural activities is still dominant in much of the region, the overall share of agricultural employment remaining at about 30%. The share of Africans who are poor fell from 56% in 1990 to 43% in 2012 even though the absolute number of poor has increased. Seventy-five percent of the world's poorest countries are located in Africa.

African countries have taken steps to boost trade in goods within the continent, but not enough; Intra-African trade as a share of GDP is low relative to that of other regions. Intra-continental imports are estimated at 4.3% of Africa's GDP, against 6.7% in the Americas, 17.9% in Asia and 21% in Europe. Still, intra-African trade in goods as a share of GDP has risen sharply since around 2000. Among the eight AU-recognized RECs, SADC consistently has the highest share on intra-REC imports, even though it does not have the lowest intra-REC average applied tariffs. Africa, especially, Sub Saharan Africa trade is dominated by imports of finished goods (mostly containerized) and exports of raw materials and commodities (mostly bulk). Some countries' exports are highly concentrated in a few commodities, making them highly vulnerable to global commodity price fluctuations. For example, petroleum oils represent 99% of South Sudan's export revenues; copper and copper products – 80% of Zambia's; and tobacco, tea, and coffee – 64% of Malawi's. The value of SSA exports of bulk commodities has declined since the end of the global resources boom in 2010; imports have continued to grow, overtaking exports in value terms. In 2016, SSA exported a total of US\$332 billion worth of goods and services and imported US\$396 billion.²

Africa's trade partners are changing. Over the past decade, Africa's trade has slowly trended away from developed countries and toward emerging economies. Whereas Western European countries accounted for the bulk of Africa's trade in the late 20th century, countries like China and India have since grown in importance as export destinations for the resource-rich economies. Emerging economies have also become origins of a significant share of imports for nearly all African countries, the total trade with China increasing twenty-fold in the last two decades. Today, China is the market for over one-third of all exports from the DRC, Zambia, and Zimbabwe, and 99% of South Sudan's exports. It is the origin of more than a third of imports into Djibouti, Kenya, and Tanzania.³ The cumulative impact of the rise of emerging market economies has been an increase in Africa's exports to these markets from \$18 billion to \$130 billion over 2000–14, for an increase in the share of Africa's exports from 9% to 15%. Similarly, imports have risen from \$13 billion to \$145 billion over the same period equivalent to an increase in the share of Africa's imports from 8% to 25%.

¹ World Development Indicators (WDI)

² COMTRADE

³ COMTRADE

Africa is urbanizing faster than any other region. Urbanization is the single most important transformation that Africa will undergo this century: urban areas in Africa comprise over 470 million people, and the largest cities are growing at 4% annually. At this rate, the urban population will grow by more than 40,000 per day between now and 2040. Most viable opportunities for economic diversification will be found in cities, but their success will require that cities function efficiently. Two-thirds of Africa's urbanization are yet to happen; the emergence of mega-cities will continue to put increasing pressure on the quality of urban transport and other services.

Freight logistics is compounding mobility challenges, particularly in major urban centres. The fastest growing cities in Africa (Nairobi – 79%, Kinshasa – 70%, Luanda – 68%, Addis – 61%, Abidjan – 55%, Dakar – 50%, Dar es Salaam – 85% as per 2010-2025 projected increase) are also major port cities or hinterland hubs of regional importance for freight transportation; the transportation of increased trade volumes will further aggravate the congestion in those cities if nothing is done to address the issue.

Several challenges have intensified more recently, prime among them being climate change and its impacts on transport infrastructure. Transport is inextricably linked to climate change: growing motorization rates increase greenhouse gas emissions while extreme weather events disrupt transport operations and damage infrastructure. Up to-date, consideration on air pollution, human health and greenhouse gas emissions have not been adequately embedded in addressing the connectivity dimension of transport policies. Moreover, Africa continues to be highly vulnerable to the consequences of climate change due to the gap of financial resources and capacity to mitigate and adapt. Climate change will have a major impact on road infrastructure: road maintenance costs will rise by 270% from increased precipitation, flooding and temperature. Under the most pessimistic climate predictions, stress imposed on the roads by precipitation in Africa will lead to rehabilitation costs 10 times above historical climate conditions; stress imposed by flooding will lead to a 17-fold increase. Approximately 300,000 bridges located on the most critical road links are particularly at risk, with an expected cost increase of 1.7 to 7 times historic maintenance costs.⁴ Road maintenance remains the most effective approach to improving the resilience of Africa's road transport networks to the effects of climate change.

Transport is a key driver of economic prosperity, sustainable development and inclusive growth. It can advance countries' progress towards the 2030 Agenda for Sustainable Development and the Sustainable Development Goals (SDGs).

Air, water and land transport connectivity is one of the essential features needed to achieve sustainable development, as it facilitates the well-managed and safe movement of people, goods, services, knowledge and capital. Transport infrastructure plays a fundamental role in connectivity enhancement and is essential to achieve sustainable development and economic growth. Transport infrastructure is also key to gender equality: well-designed infrastructure projects have the potential to improve women's access to education, health care, employment opportunities and economic resources.

As part of the ***EU-Africa Alliance for Sustainable Investment and Jobs*** launched in September 2018, the ***AU-EU Transport Task Force (TTF)*** was set up in early 2019. The TTF was composed of an equal number of European and African representatives from public institutions, private firms, International Financial Institutions, Development Agencies of the Member States and civil society from both continents.

Over a period of six months, the TTF worked in three separate clusters, producing three reports that were combined into one single document which addresses the barriers faced by Africa as it

⁴ Cervigni, R., A. Losos, P. Chinowsky, and J.E. Neumann. (Eds.) (2016). Enhancing the Climate Resilience of Africa's Infrastructure: The Roads and Bridges Sector. World Bank Group.

seeks to develop its transport sector. The clusters' work focused on complementary transport areas: Air Transport, Connectivity and Road Safety. Discussions taking place in each cluster started from different points: some building on existing initiatives while others exploring brand new cooperation areas. The overall objective was to provide recommendations on policies and measures that can support pan-African Transport connectivity and regional integration.

The draft overall report was presented to the AU and EU Commissioners at the final meeting of the TTF in Brussels on the 25 July 2019, where all members reached a common agreement to put together the three clusters' proposals in one single report. The consolidation work was carried out in September/October 2019 and structured around the following five chapters.

- (1) Connectivity Policy & Sustainability
- (2) Strategic Corridor Development & the Role of PIDA 2020-2030
- (3) Road Safety
- (4) Aviation
- (5) Scaling-up investments, private sector involvement & innovative financing

1. Connectivity Policy & Sustainability

1.1. General context & Problem Analysis

Africa accounts for the highest number of landlocked countries, 14 out of the 16 of these are amongst the world least developed countries (LDC). The lack of territorial access to the sea and the remoteness from world markets are significant obstacles in their development efforts. 23 percent of Africa's population lives in completely landlocked countries.

Even though the situation varies across countries, cross-border transport in Africa is frequently characterized by long delays and cumbersome procedures at borders, punitive and arbitrary transit tariffs, market access barriers and transport restrictions. Intra-regional and international transport continue to be largely time consuming, costly and uncertain, therefore hindering trade. This makes countries' exports less competitive in international markets, increases the prices of imported goods, impedes regional integration and cohesion and prevents development efforts. Africa is the least connected region in the world with a cost to import a container 56% above world average (4 times higher in landlocked countries): transport costs contribute to as much as 40% of the final price of goods. Nevertheless, existing good practices in international and regional logistics and trade in Africa's best performing countries can be used as examples for countries that want to improve in these areas.

Approximately 60 percent of the continent's population lacks access to modern infrastructure, which isolates communities, prevents access to health care, education and jobs, and impedes economic growth according to the UN. Inadequate infrastructure is a major deterrent for Africa to achieve its full growth potential. Costly, low quality and unreliable transport services contribute to large discrepancies within country regional inequality and limit growth convergence. The rural poor in Sub-Saharan Africa are the most isolated in the world with only 34% of the population living less than 2 km away from an all-weather road. Lack of accessibility is a key reason why the rural poor cannot escape extreme poverty. The Africa Continental Free Trade Agreement presents an opportunity for improved inter-regional trade and economic growth. The world's largest free trade area by number of countries, it covers more than a billion people and includes a collective GDP of more than \$2 trillion. The UN estimates that the free trade area will boost intra-African trade by 52% in the next few years, and such trade will double as the remaining tariffs are removed. Building the transport infrastructures and services necessary to capitalize on these improvements will remain a challenge.

At continental level, the Africa Union Commission (AUC) has the responsibility for defining policies and strategies for the development of transport infrastructure aiming at increasing regional integration and the competitiveness of African products on the world market.

There are eight recognised Regional Economic Commissions (RECs) with some African states being members of more than one REC. The overlapping membership generates a challenge for the smooth implementation of regional policies. The establishment of sub-regional RECs grouping such as the SADC-COMESA-EAC Tripartite constitutes a valid effort toward coordination and harmonisation.

In addition to the RECs, there are specialised Regional Transport and logistics Organisations such as such ports associations, road transport associations, clearing and forwarding associations, as well as Corridor management institutions which play a critical role in the policy dialogue and in the implementation efforts on trade facilitation and regional integration issues.

Most African countries have good transport policies, but enforcement remains a challenge due to weak institutional and planning capacity and scarce budgetary resources.

The efforts of African States and Regional Organizations focus on updating and harmonizing policies and strategies at regional and continental level, as well as legal and regulatory frameworks governing the provisions of logistics services (trucking reforms, single windows, joint border posts, dry ports and road or railways links logistics platforms, inland waterways). These efforts should be supported to improve the quality of transport and logistics services on inland surface transport modes.

Africa has a major connectivity problem that hampers the ability of Africans to access jobs, human capital opportunities and markets. Innovative policies, use of new technologies and private sector participation are partially improving transport performance in certain countries. Yet, much remains to be done to make transport sustainable, resilient and safer.

As far as transport connectivity between North African countries and the EU is concerned, cooperation has been active since decades, particularly under EU's Southern Neighbourhood policy (i.e. Euro-Mediterranean cooperation). This Euro-Mediterranean policy framework in the transport field has precisely focused on two main elements:

- (i) facilitation of transport conditions through a series of improvements based on the convergence of transport regulation between the countries of the two shores of the Mediterranean, and
- (ii) improvement of infrastructures in the region, with the definition and promotion of a multimodal transport network.

This is and has been channelled through, in particular, the various editions of the so-called Regional Transport Action Plan (RTAP) for the Mediterranean region, firstly for the 2007-2013 period and secondly for the 2014-2020 period. The first RTAP 2007-2013 already adopted the idea of planning a multimodal Trans-Mediterranean Transport Network (TMN-T), as an extension of the EU's Trans-European Transport Network (TEN-T) framework which forms the basis of the EU's transport policy, and tackling its funding. The second RTAP 2014-2020 comprises 23 actions in the areas of maritime, land (road, rail and urban), air transport as well as the integrated multimodal Euro-Mediterranean Transport Network (TMN-T).

However, these initiatives should not compromise the interoperability of the transport systems on the continent. The harmonisation programmes should involve all the regions of the whole continent to insure the compliance with the AfCFTA requirements.

Transport policies need to be more oriented to social and environmental challenges and to climate change in order to establish an efficient and effective strategy against their adverse consequences. Transport is responsible for 23% of global energy-related greenhouse gas emissions, three quarters of which come from road vehicles. At the same time, transport is also suffering from the effects of climate change when extreme weather events disrupt transport operations. The vulnerability to impacts of climate change on ecosystems, water resources, desertification, floods and heat waves will be most felt in Africa due to lack of financial resources and capacity to mitigate and adapt. On the one hand, transport policy-makers and the transport community are seriously engaged in developing environmentally friendly and sustainable transport systems, and in making transport infrastructure resilient. On the other, fast urbanization and growing motorization rates will increase Africa's contribution to greenhouse gas emissions. Inaction in this area would undermine the adaptation measures taken by countries.

Africa's transport sector is facing, in some countries, weak technical, institutional and financial capacities as well as governance problems. The limited ability to enforce policies affects the performance of the sector and translates into various shortcomings. The capacity-building dimension does not receive the priority it deserves when developing transport policies, programmes and projects at national and regional level.

Low enforcement of sustainable maintenance systems at national level results in the failure to maintain infrastructure assets. This is often coupled with inadequate project designs and lack of maintenance funds and management capacities. The problem is aggravated when already inadequate funding is directed towards investment in network expansions and upgrading instead of maintaining existing networks. While undertaking the required expansion and upgrading of Africa's transport network, it is equally important to maintain existing assets.

Existing legal and regulatory frameworks are not always conducive to good organization and facilitation of transport and trade at national and regional level due mostly to the lack of harmonisation. There are inconsistencies between national and regional policies and regulations, and discontinuity on priorities, policy coordination and direction. There is progress in regional

political and economic integration, especially with the launching of the Africa Continental Free Trade Area, but the process of deepening regional integration on the continent has to be accelerated. In particular, the ratification and implementation of the communal/continental instruments aimed at the interoperability of transport system and, ultimately, at the integration of the continent have to be fast tracked.

Transport facilitation in particular concerning shipping services is hindered by:

- long delays and cumbersome procedures for cross-border movements, beginning from the ports, along corridors and at the borders;
- transport market restrictions, such as requirements that all private importers and forwarders must ship their cargo through government controlled agencies;
- restrictions around related activities; road transportation might not be allowed to be handled by shipping lines, which could constitute a better option to offer integrated services;
- demands on shipping lines not to invoice demurrage, detention, congestions surcharges, etc.;
- interferences of port authorities in fixing prices with customers, e.g. Terminal Handling Charges;
- freight sharing cartels between coastal and landlocked countries, which are still in place especially in West Africa;
- different treatment between local and foreign companies;
- high taxation and complicated administrative procedures;
- court judgments where rulings disregard both maritime and contractual law (usually regarding release of containers without full documentation).

A number of shortcomings and blockages in the implementation of the current Regional Transport Action Plan 2014-2020 between North African countries and the EU have already been identified:

- The lack of regional benchmarks to monitor and evaluate the actual implementation of the Action Plan and its contribution to regional convergence and integration.
- A mutually agreed indicative map of the Trans-Mediterranean Transport Network (TMN-T) and its connection with the Trans-European Transport Network (TEN-T) could still not be established to date as a blueprint for regional transport infrastructure development.

Construction business in Africa remains highly risky in some countries. National administrations still have difficulties in assessing risks, quality of project designs and societal needs. The implementation of projects themselves faces engineering problems as project designs are not appropriately conceptualized and procurement decisions are not always transparent. Very frequent constraints also include difficult expropriation and sub-contractor non-deliverance. A number of these challenges are mitigated through the engagement of external internationally experienced advisors and consultants to support national governments but there is still the need to strengthen the local engineering services. Low consideration is given to the local industry as an asset of sustainable economic growth. This results in marginal development of local construction sectors in Africa.

The demographic growth and rapid urbanization have a strong negative impact on transport infrastructure and services. National administrations do not always adequately integrate urban planning in regional network plans.

Transport is inextricably linked to climate change: growing motorization rates increase greenhouse gas emissions while extreme weather events disrupt transport operations and damage infrastructure. Africa continues to be highly vulnerable to the consequences of climate change due to the gap of financial resources and capacity to mitigate and adapt. In addition, up to-date, consideration on air pollution, human health and greenhouse gas emissions have not been adequately embedded in addressing the connectivity dimension of transport policies.

1.2. Recommendations

1.2.1. Regulatory Framework

- Promote comprehensive road, rail and port maintenance reforms and funds governance reforms that guarantee fund transparency and efficiency. Enhancing maintenance reforms remains the most effective approach to improving the resilience of African transport networks to the effects of climate change. In road maintenance, work on the definition of third generation road fund criteria should be conducted in an inclusive manner with National Road Administrations, Road Funds, RECs and African Union Commission.
- Enhance project preparation and delivery, and provision of technical assistance and reinforcing capacities:
 - For upstream studies (master plans, strategies, etc.). For downstream studies (investment programming, feasibility studies, value for money studies, detailed design, tender dossiers, transaction structuring, etc.). For institutional support: EU proposed, with focus on centralization of the lessons learnt (if not at continental level, at least at regional level);
 - For implementation, e.g. through Project Implementation Units;
 - For increasing added value of transport projects and programmes, such as via interventions for road safety, support for maintenance to ensure a longer asset life etc.
- Ratify continental and regional resolutions and commitments and effectively implement tools that already exist at these levels as well as in some countries in Africa through advocacy and capacity building. It is important to update and develop these tools at the level of the AUC, which is in charge of the harmonization of policies and strategies in the continent.

Box 1: Good examples of tools that already exist at the continental level:

- 1- African Transport Policy;
- 2- African Revised Maritime Transport Charter (9 countries ratified and still need 6 more countries to ratify and ensure it entry into full force);
- 3- Guidelines on the Corridor Management Institutions;
- 4- African Road Safety Charter (13 countries have signed and 1 country ratified – Namibia – still need 14 more countries to ratify and ensure it entry into full force);
- 5- Intergovernmental Agreement on Harmonisation of Norms and Standards of the Trans African Highway Network (TAH);
- 6- Single African Air Transport Market (SAATM) (to-date, 28 countries are part of the market. The SAATM is open for all African countries to join)

- Update and harmonize legal and regulatory frameworks governing the provisions of logistics services: trucking reforms, single windows, joint border posts, dry ports and road or railways links logistics platforms, inland waterways.
- Joint Border Posts (JBP) should be demand-driven and the lead should remain at bilateral level. Conceptualization of JBP should include an exit strategy, as in the hypothesis of a single market, they are deemed to disappear.
- - ➔ ***Improve the policy and regulatory framework at continental, regional and national level to enhance the quality and inter-operability of transport infrastructure and logistics services of different transport modes***

1.2.2. Investment promotion

- African governments should promote policies that encourage local “champions” who can drive infrastructure projects that are both financially viable and socially beneficial. Local contractors are not only a valuable contribution to the construction value chain, but a key asset in developing local societies and economies, thereby creating jobs directly and indirectly. This could be achieved through:
 - Giving visibility through medium term programming (5 years) to allow investment into equipment and people for local contractors;
 - Encouraging partnerships between Multinationals and National / Local companies;
 - Implementing “National Preference Rules” in works contracts of less than 5 M€;
 - Giving weight to sustainability criteria in the procurement process (respect of environment, development of local industry, impact on communities, safety aspects, etc.).

- Establish more business fora in African countries, in order to extend the breadth and depth of local engagements between the sector stakeholders to share knowledge, experience, best practices and to forge regional alliances.
 - ➔ ***Improve and enforce the legal and regulatory frameworks to create a more attractive environment for investment and establish a more favourable climate for business. Harmonise legal and regulatory frameworks and policies at national and regional levels***

1.2.3. Planning and Decision-making

- Improve and promote the harmonization of the data and the statistics via the creation of the “African statistics office”
- Artificial Intelligence (AI) applications should be explored to improve the efficiency of Africa’s transport services. In urban transport, AI-enabled models can be introduced, such as smart traffic light optimization, parking solutions, congestion pricing, and network optimization for congestion relief and emissions reductions. Opportunities for AI applications in the railways, ports and airport sectors include, among others, predictive maintenance, routing and scheduling. Across all modes, the potential of applying blockchain technology should be tapped into to improve logistics efficiency. This area also presents great opportunities for country and city governments to establish partnerships and collaboration with universities and private companies.
- Use of innovative digitalisation technologies could also facilitate the following:
 - substantially improving data (from applications or simply by identifying the speed of the vehicles) and statistical exchanges and implementing a harmonized system of transport data and statistics;
 - simplifying data collection from applications;
 - freight sharing cartels can easily be broken with applications that allow direct transactions between shippers and transporters;
 - identifying road conditions (IRI) with new apps like RoadLabPro;
 - electronic tolling systems are gaining ground, helping reduce delays and improve transparency;
 - digitization and integration of driver and vehicle records can facilitate enforcement and improve road safety;
 - online platforms can provide feedback mechanisms for road users, enabling faster response and improved satisfaction.

- ➔ ***Improve transport planning and decision-making and increase efficiency and effectiveness of transport networks, with a strong emphasis on digitalisation***

1.2.4. Urban mobility

There is potential to significantly increase mass transit in the fastest growing African cities while strategically reorganizing the existing small-scale public transport systems. Innovation is essential to make significant progress in closing the existing urban connectivity and accessibility gaps. Urban transport planning needs to increasingly incorporate “big data” tools to understand mobility bottlenecks and measure outcomes. The sustainability and efficiency of mass transit systems will depend on interoperable smartcard systems and the metropolitan areas’ capacity to regulate the integration of different public transport modes (physical and fare integration).

→ ***Adopt strategic urban mobility planning in the regional transport connectivity by developing networks that take in due consideration the urban corridor dimension***

1.2.5. Sustainability

- Support greener forms of transport and innovations in transport/smart mobility, notably those that increase the sustainability, safety and asset life of transport infrastructure (road data, electric cars, automated weighing stations, better quality of imported fuels, improved Motor Vehicle Inspections, taking into account urban mobility/public transport issues...).
 - Efforts to decrease the impacts of Africa’s transport system on the climate and the environment requires addressing all the drivers of carbon and pollutant emissions:
 - Incentivizing reduction in vehicle activity: better integrate and align transport and land-use planning in urban areas to reduce commuting distances and travel demand.
 - Incentivizing modal shift: assist regulatory reform; help leverage private investment and structure financing packages; and assist in the design of fare structures to promote a shift (i) from cars and paratransit to mass transit and non-motorized transport in urban areas, and (ii) from road transport to rail and waterway transport in inter-urban and rural areas.
 - Incentivizing reduction in the energy intensity and fuel carbon content: assist in the design of financial and regulatory incentives for fleet renewal (access to credit; fees, taxes and vehicle related policy); capacity building and regulatory frameworks to improve vehicle inspections; design of incentives for -- and assistance with financing of -- transition to electric and CNG vehicles in public transport fleets (e.g. BRTs).
 - Support the development of infrastructure to follow from investments in other industries / sectors. Prevent waste of financial resources by avoiding investing in transport infrastructure without a clear link to other economic and social sectors. Support adequate infrastructure development planning, with a long-term sustainable approach taking into account regional linkages.
 - Ensure that safety, notably road safety, is promoted in strategic corridors and prioritized within PIDA and associated investments.
 - Allow / facilitate the private sector to step in (through regulatory and fiscal means, assistance to incubators and entrepreneurs, SME financing, etc.)
- ***Promote the design, construction and operation of quality infrastructure and means to support the development of safe, sustainable, and resilient transport networks by systematically integrating the objective of reducing greenhouse gas emissions***

2. Strategic Corridor Development & the Role of PIDA 2020-2030

2.1. General context and Problem Analysis

Enhancing Africa's connectivity is critical in addressing its low trade integration and its fragmentation into small-scale economies. Connectivity can boost economic growth through facilitation of trade and tourism, and improve transport services, mobility and accessibility. In turn, this may facilitate integration of Africa in the global market. The African market remains highly fragmented and trade integration is low. Intra -regional imports and intra-regional exports stood at 13.2 and 17.7 percent of the total imports and exports of Africa respectively, in 2016. This is almost insignificant compared to 55.2 percent of intra-regional exports in case of America, 59.4 percent in Asia, and 68.7 percent in Europe.

Addressing connectivity issues from a corridor perspective rather than a national or segmented perspective has proven more effective over the years. Transport aspects of the trade corridor approach aim at improving the adequacy and the efficiency of the three interconnected policy pillars of the trade and transport systems, which are:

- policies and strategies based on strong monitoring and evaluation for evidence-based decision-making;
- appropriate institutional framework and institutions with adequate capacity;
- logistics service provision and delivery based on appropriate legal and regulatory environment.

Developing trade corridors is part of the regional integration agenda of the African Union, which aims at establishing a Continental Free Trade Area (CTFA) in order to foster economic development through trade growth, particularly intra-Africa trade. Often limited to facilitating transit of international imports and exports along the regional corridors, the corridor approach is now being broadened to include movement of locally produced goods. The trade corridors approach aims at providing comprehensive connectivity between international, national and rural networks and at facilitating trade at country and regional level, resulting also in increased food security.

Various institutional arrangements have been established in Africa to oversee trade facilitation activities. For instance, the Regional Economic Communities Transport Coordination Committee (REC-TCC) provides a platform for RECs to consult and coordinate their trade and transport facilitation activities. Various corridor management bodies have also been created to promote, develop and improve the efficiency of transit corridors across the continent – examples include the Northern Corridor Transit Facilitation Authority, Walvis Bay Corridor Group, and the Central Corridor Transit Transport Facilitation Agency. The Africa Corridor Management Alliance is another consultative structure created to facilitate experience and knowledge sharing among corridor management organisations.

Seamless inter-modal connectivity, with efficient logistics chains that include ports, rail, and dry ports is key for successful regional corridor development. However, in Africa integration between road transport and cleaner modes remains limited. Upwards of 80% of freight is still moved by trucks. Severe railway capacity gaps already by 2020 are expected on several corridors. Increasing and modernizing the port infrastructure, the navigational aids and crafts, updating the regulatory instruments and enhancing the human capital are needed to improve the utilization of freshwater ports, such as in Lake Tanganyika, Lake Victoria, and on the major rivers (Niger, Zambezi). Container port capacity gaps will be faced by several ports across the continent if no steps are taken in anticipation. Rail corridors can assure more resilient and greener connectivity but are costlier at the initial stage and are only financially and economically sustainable where volumes of freight traffic are substantially higher than the current levels passing through corridors. A significant part of the African railway network is in a poor state, and most lines are single track and not electrified. Unless there are major mining development, rail corridor development will remain highly selective.

Ensuring an efficient transit regime is an essential element of any development corridor. The customs and administrative clearance both at the port and at the border crossing can be accelerated

by leveraging the potential of electronic systems through efficient single window system inter-states customs interconnectivity.... Agreement on comprehensive and coherent trade, transport and transit arrangements is essential, including (if possible) relaxation of traffic limitation, traffic quotas, third-country traffic limitations, and prescribed routes, and including better use of cabotage and road user charges, while facilitating taxation issues, driver licenses and visas, and vehicle (axle load) regulations. Regional coordination is important in this regard, coupled with specific work in each country, potentially through a regional trade and transport facilitation initiative similar to the ones that were developed in Europe in the 1990s when Eastern Europe opened itself to join the European Union.

Overall, Africa's logistics performance and international connectivity are becoming more competitive. Over the last decade, significant physical investment in the main regional corridors, increased attention to inter-modal connectivity, as well as implementation of trade facilitation measures to enable cross-border trade and to smooth the intra-regional movement of labour, have led to improvements in the region's performance as evaluated by the international Logistics Performance Index, with most African countries climbing in the ranking relative to their global peers since 2010. Maritime shipping productivity has improved largely due to the implementation of port concessions, even though competition in some countries remains limited. In West Africa, the private sector has delivered critical sector improvements by converting poorly equipped terminals into modern container terminals of international standards; nevertheless, governments are yet to embark on the full set of the structural reforms necessary for deeper and longer lasting change.

The New Partnership for Africa's Development (NEPAD) is the African Union (AU) Development Framework to enhance Africa's position in the global economic architecture, as well as to improve regional and continental integration in Africa. It represents a shift from the inward-looking and self-reliant mantra of the Lagos Plan of Action (LPA) of 1991. NEPAD, as a Programme, articulates key programmatic flagship development programmes/projects in Infrastructure, Agriculture, Health, Science & Technology, Fisheries, to name a few.

In 2010, in a bid to better align the NEPAD Programme to regional development plans and priorities of Regional Economic Communities (RECs), the Programme for Infrastructure Development in Africa (PIDA) was approved by the NEPAD HSGOC (Heads of State and Government Orientation Committee). PIDA is a continental strategic framework to address infrastructure impediments through cross-border infrastructure development in the areas of transport, energy, information and communications technology (ICT) and trans-boundary water management. The Programme was approved by the African Union Assembly of Heads of State and Government Summit, in January 2012, in Addis Ababa (Ethiopia).

In the November 2011 Luanda declaration, the African Ministers of Transport gave PIDA top priority as the single most important programme for inter-regional and continental integration. The programme is expected to help to interconnect transport networks, especially those serving landlocked and island countries, for the territorial, economic and social cohesion of Africa in support of its global competitiveness.

The Trans-African Highway (TAH) network, which is part of PIDA, is a critical component of transport connectivity in Africa. In 2014, African Heads of State adopted the intergovernmental agreement on the norms and standards of TAH. Other important transport connectivity projects that are part of African Union's Agenda 2065 – the continent's long term development plan – include the Single African Air Transport Market and the Continental High-Speed Rail Project.

A key component of the PIDA Programme is its Priority Action Plan (PIDA PAP-1) estimated at \$US68 billion. Accordingly, PIDA-PAP 1, which was set out for implementation up to 2020, embodies 51 cross-border programmes/projects - decomposed into 400 projects.

PIDA-PAP 1 is currently being reviewed through the PIDA Mid Term Review (MTR) process, sponsored by AUC, AUDA-NEPAD and key partners. The process is expected to highlight the

challenges faced during the implementation of the first phase and outline key recommendations for the next phase. In a bid to entrench a strong strategic foundation, and focus, for African infrastructure development for the next decade (2020-2030), a new PIDA priority action plan (i.e., PIDA PAP-2), will be developed through a transparent and participatory approach.

The Strategic Focus of PIDA PAP-2 will be on multimodal/multisector – cross-border Corridor Development Approach. To ensure that PIDA PAP-2 projects are in line with current and future infrastructure development priorities of Agenda 2063 connectivity aspirations - a Market and Demand Study (MDS), to better forecast Africa's infrastructure demand, is being developed, as a key input into the selection and prioritization of PIDA PAP-2. The MTR together with the MDS will form the conceptual basis for the development of the selection criteria for PIDA-PAP-2 and its Strategic Corridor Implementation Approach.

Regarding best international practice, the Trans-European Transport Network (TEN-T) forms the basis of the EU's transport policy. It aims at implementing and developing a Europe-wide network of roads, railway lines, inland waterways, maritime shipping routes, ports, airports and rail-road terminals. The ultimate objective of TEN-T is to close gaps, remove bottlenecks and eliminate technical barriers that exist between the transport networks of EU Member States, strengthening the social, economic and territorial cohesion of the EU and contributing to the creation of a single European transport area.

The inherently cross-border dimension of transport is reflected in the international reach of this EU policy. The main focus of the EU international transport cooperation, also with North African countries, is on extending internal market rules, notably through work in international organisations, and on promoting European safety, security and environmental standards.

In this context, opening up third country markets in transport services, products and investment to free and undistorted competition and environmentally sustainable solutions, continues to be a priority for the EU.

A key objective for the EU is also to extend the EU's transport and infrastructure policy to the neighbours of the Union. Again, this concerns North African countries. In other words, the European Commission aims at ensuring EU's role as a standard setter in the transport sector in these countries.

The EU transport policy with its Southern neighbours, notably at regional level and in particular with North Africa, identifies infrastructure connections and promotes regulatory convergence. This transport cooperation is being taken forward by the EU in close coordination with the Union for the Mediterranean.

The North African Mediterranean members of the EuroMed partnership are: Algeria, Egypt, Libya (since 2012 Libya is an eligible country for EuroMed partnership and has observer status in the UfM), Morocco and Tunisia. In addition to North African countries, the UfM also includes Mauritania, among its African Member States.

The key priority of this cooperation has been the achievement of a safe, sustainable and efficient transport system in the Euro-Mediterranean area. The activities relate to:

- Regulatory reforms and convergence strategy covering all modes of transport (maritime, road, rail, aviation as well as urban transport) and defined by Regional Transport Action Plans (RTAP). In particular, actions conducted through EU-financed technical assistance cover maritime security and safety and prevention of pollution; intermodal project on motorways of the sea; aviation safety and security and air traffic management; road, rail and urban transport.
- The establishment of the future Trans-Mediterranean Transport Network (TMN-T) and its connection with the TEN-T, as well as promotion of maritime links (along the concept of Motorways of the Sea).

The overarching objectives of the Trans-Mediterranean Transport Network (TMN-T), and its connection to the Trans-European Transport Network (TEN-T) are to:

- Ensure consistency of an integrated multimodal Euro-Mediterranean connectivity between the networks of the EU Member States and those of the Southern and Eastern Mediterranean countries, in particular of North African Countries, through harmonised infrastructure policy (roads, railways, ports and airport projects) and transport standards (regulatory reforms).
- Allow for access to financing support by the EU (i.e. External Investment Plan (EIP), which includes “Neighbourhood Investment Platform” (NIP) for blending and technical assistance, and the new European Sustainable Development Fund guarantee for private sector development), the EIB and other European and International Financial Institutions.

The integration into the EU TEN-T Policy is done in particular through indicative maps (“indicative extension to neighbouring countries”). The TMN-T does not replace or supersede any national transport masterplans. The TMN-T should be updated as needed.

Methodology employed for the definition of the TMN-T as an extension of the TEN-T to the Southern and Eastern Mediterranean region, is the same used to define the TEN-T. The TMN-T has thus been prepared as a “Comprehensive network.”

After analysis, the development of EU-North African cooperation for the interoperability of transport networks entails the risk of fragmentation of transport throughout the African continent. In the aim to allow the smooth interoperability of the whole African transport network and also between African and European continents, the EU intends to propose a policy to harmonise transports norms and standards for the two continents. This policy will take into account, among other things, all the documents and instruments aimed at harmonizing transport norms and standards on both continents, as well as the various implications. It is possible to integrate this harmonization policy with AfCFTA in order to ensure the effective operationalization of the latter.

Problem analysis

National and regional master plans are frequently disconnected from the framework of PIDA PAP 2012-2020. The pipeline of projects is still dispersed and uncertain in 2019. Identification of priority regional corridors infrastructure programs/projects has not always been backed by sound economic analysis to arrive at the most efficient route for further investments and development regionally.

While a bottom-up approach was used in selecting PIDA projects (with PIDA projects being drawn from national and regional master plans), regional projects are not often prioritized at the national level. There are clear criteria for selecting projects to be considered including regional dimension, economic impact, advanced stage of preparation, etc. - and the process of preparing the next phase of PIDA is ongoing.

The approach to corridor development has often been limited to transit facilitation of international imports and exports along the regional corridors. Corridor improvements have often been carried out without considering the link with the national and rural networks. This restricts the impact to international trade and does not benefit national producers and trade of regional products, limiting the potential for economic growth.

Corridor design is frequently poor with regard to integration of local movements. Where the corridor passes through or near communities and cities, highway corridors are also used for local traffic which tends to frequently exceed the long distance traffic, resulting in localized congestion through the corridor. The planning and integration of developments immediately adjacent to a corridor is very limited.

The main focus of corridors is currently on the movement of goods, which is insufficient and. integration of movements of person alongside those of goods will become increasingly significant, as local economies develop.

The existing port facilities and current operational practices in many African sea ports are inadequate, with insufficient capacity to serve not only their coastal countries, but also the hinterland of landlocked nations. The visible result has been high ship waiting times, high berth occupancies, congestion on the land and maritime side, and increased costs. One challenge faced by African ports, almost without exception, is the need to improve landside access characterized by: limited inter-modality, limitation in the quality of road infrastructure connecting to the port, congestion at the port-city interface and delays at the border-crossing points.

African ports also need to significantly invest in modern port management systems to improve efficiency and reduce costs. While individual services such as single-window, tracking-tracing, automatic data interchanges, or truck appointment systems are present in some African ports, none of them currently operate a full port community system (PCS). Movement towards a substantive PCS would allow reducing the inefficiencies associated with the prevalent paper-based systems.

In the region's trucking sector, one of the main issues is the predominance of small, informal operators that have difficulties with securing freight loads. This leads to several inefficiencies, such as high prices that are not fully captured by carriers, high variable costs, low fixed costs, low vehicle use, old fleets, high time delays and uncertainties in delivering goods. In addition, often-weak legislation with a low level of compliance opens the door to predatory intermediaries.

While a few formally structured corridor management institutions perform satisfactorily, the number of operational corridor management bodies with permanent set up is nonetheless insufficient and they are generally constrained by capacity and financial sustainability issues. Similarly, only a minimum number of transport observatories are operational across the continent. As a result, the lack of sound data from appropriate monitoring tools have hampered inclusive policy dialogue amongst relevant stakeholders to address the challenges confronting development of the corridors. The collection of post implementation data for most major transport schemes is often limited to that which can be collected readily, such as traffic or goods flows. This gives little insight into the decision processes.

2.2. Recommendations

2.2.1. Continental and Regional frameworks

- Reinforce cooperation, under the AUC coordination mandate, between Regional Organizations/IFIs/Bilateral DFIs/EC as well as partner governments at local, national and regional level in a more structured manner. This should contribute to avoiding resource wastage, duplication, inefficiency and lack of coordination. Ultimately, it should aim for a pipeline of mature projects and long-term programmes that take into account the synergies between different modes of transport.
- Disseminate, improve and implement, and the concept of SMART corridors as part of the overall corridor development process. In this perspective, the good example of the European TEN-T regional corridors can be used to improve the model of integrated smart corridors in Africa. In particular, it could be useful to extend the European corridors to North Africa to enhance EU Africa connectivity in addition to inter Africa connectivity.

Box 2: Pilot projects of SMART Corridors

Through the Programme for Infrastructure Development in Africa (PIDA) AUC and EU have worked to address the infrastructure gap on major transport corridors. **North-South Corridor (NSC)** and **Dar es Salaam Corridor (DC)** were selected initial continental Pilot Smart Corridors. From information collected through desk research and field visits, gap analysis was undertaken of the two corridors based on the key characteristics of the SMART Corridor (SC) definition and the appropriate corridor coordination and management for a SMART Corridor. From this analysis activities to close the gaps and convert the corridors into SCs were identified and costed.

The objectives of a Smart Corridors are to, inter alia:

- i- Increase the use of real time traffic data and statistical information to optimize use of corridor resources and infrastructures;
- ii- Enhance trade and transport facilitation by implementing paperless automated administrative procedures
- iii- Reduce cargo transportation time and costs;
- iv- Increase safety and security of transport services;
- v- Ease the opening-up of landlocked countries for enhancing intraregional and international trade; and
- vi- Enhance corridor countries competitiveness.

- Include safety as a determining factor for prioritizing and implementing projects, especially in the road sector.
- Promote and apply the interoperability model by using a continental political framework as well as benefits of the digitalization to guide the regional investments.
- Focus infrastructure development on priority ports and inland corridors (both road and railway). African infrastructure is in need of efficiency and cost effectiveness through scale, meaning to focus efforts where the local environment is conducive to investments.
- Focus on Hub and Spoke solutions to improve port connection, given that ports are the main freight providers of inland transport networks. It is necessary to foster partnerships between port networks to implement collective intelligence.
- Promote the Intergovernmental agreement on norms and standards of the Trans African Highway network; develop training sessions and integrate in the policy dialogue.
- Boost the achievement of Africa's digital connectivity goals by exploiting synergies between transport and digital: deploying fibre optics along roads and rail to connect productive centres, schools and health centres using digital technologies to make transport systems smarter.

- Promote strategies to tap into the large potential for leveraging private innovative solutions in digital connectivity for countries and transport sub-sectors: urban transport, regional corridors, roads and rail across Africa, ports in the continent.
- ***Accelerate the implementation of the continental and regional frameworks, texts and instruments adopted by the African Heads of State and Government, in the prospect of the Africa-EU connection***

2.2.2. Corridor Development

- The main access gate for Hinterland in Africa is the ports, most often, congestioned and in the middle of the cities, enhance the development of the proximity dry ports with direct connection with the seaport.
- Give priority to the projects which create scale economies and push toward the massification, one of the main drivers to decrease the logistic costs in Africa.
- Promote at national level, the development of a sustainable transport infrastructure vision that entails the maintenance of corridor assets through various measures such as:
 - Better spending planning between maintenance, rehabilitation, upgrading and new construction;
 - Design strategic corridors projects in a “conservative” manner so as to mitigate possible maintenance neglecting;
 - Encourage different schemes [e.g. D-B-O-T] to include maintenance in contract packages;
 - Clarify and provide training on concepts such as Fit-for-Purpose, Value for Money and Most Economically Advantageous Tender (MEAT);
- In corridor planning due consideration should be given on how urban traffic is to be dealt with (particularly because of the rapid economic and population growth rates) having clear development proposals of by-pass routes, which constitute the urban segment of regional corridors. Due consideration of accesses to and from corridor hinterlands is needed together with enforcement of land use and zoning and of controls on developments immediately adjacent to a corridor, due to its importance regarding safety and effective operations.
- In corridor planning, infrastructure investments should be coordinated with policies that promote agro-logistics, livestock, and other industries along the corridors to benefit the local communities. As trade and transport are major resources of income for many African countries, the incomes generated at country level should be mobilized for a long-term development and management of the transport infrastructures that are strategic for poverty reduction.
- ***The development of regional corridors should go hand in hand with developing linkages between these corridors, the national networks and the urban agglomerates. The dimension of rural connectivity should be integrated into the corridor approach.***

2.2.3. Corridor management

- Create a digital platform centralizing in one point all the current corridors and the transport infrastructure projects
- Develop and/or update strategic plans for corridor management institutions that take into account emerging challenges, climate change and the integrated economic corridor approach;
- Strengthen the operational capacity and ensure the financial sustainability of corridor management institutions both existing and planned ones.

- Promote the establishment of transport observatories along the priority corridors and consider their hosting preferably by the corridor management institutions ensure efficiency and sustainability
 - Corridor management organizations should establish observatories in order to:
 - Identify the extent to which the corridor development is meeting the appraisal targets in the areas of financial and economic returns, traffic and transport conditions and operations, social effects, safety, reliability of service and the environment;
 - Identify and quantify previously unforeseen problems and help determine what is required for them to be overcome;
 - Identify further opportunities to enhance corridor impacts;
 - Provide useful evidence to inform future corridor developments.
 - Empower organizationally and financially Observatories to be able to collect, interpret and publish corridor data to agreed levels and schedules. They should be independent of, but answerable to the corridor management body.
- ***Support the establishment of corridor management institutions with a permanent operational structure along all priority corridors, optimize the inclusive dialogue between key actors in the corridor, and facilitate coordination among development partners.***

3. Road Safety

3.1. General context and Challenges

Road crash injuries are the 8th leading cause of death globally (1.3 million on the latest WHO estimates) and the lead killer of school children and young adults aged between 5 and 29. At the global, regional and national level, governments have committed to Vision Zero – to eliminate deaths from road crashes by 2050. However, without focused and effective action, deaths in road traffic crashes are forecast to rise further and faster over the next decade exacerbating the existing humanitarian crisis and its costly, needless blight on sustainable development.

African road traffic death rates are the highest globally and more than four times higher than the European average. With just 2% of the world's cars, Africa contributes 16% of road deaths and 44% of global pedestrian and cyclist fatalities. Moreover, large increases in motorised traffic are expected, for which existing and developing African traffic systems are insufficiently prepared. These challenges are often aggravated by the lack of sustainable safety management and the absence of leadership, coordination and funding arrangements that underpin better performance.

This paper summarises the recommendations of the Road Safety Cluster established under the Africa-EU Task Force on Transport and Connectivity. The Task Force is part of the new Alliance for Sustainable Investment and Jobs between Africa and Europe. It brings together different road safety stakeholders from the two regions, including associations, the industry, international organisations, financial institutions, and civil society.

The Road Safety Cluster has focused on the delivery of concrete recommendations in four main priority areas – road safety management and data collection, infrastructure safety, vehicle safety and the safety of road users – where joint efforts could achieve the best improvement in Africa's road safety situation. These recommendations range from 'high level' commitments – for example on the establishment of an African Road Safety Observatory or the ratification of the African Road Safety Charter and the UN Road Safety Conventions and Agreements – to concrete fundable projects like twinning arrangements for lead road safety agencies, roads authorities and traffic police and IFI cooperation to build a pipeline of safer road infrastructure projects.

The following 13 agreed priority recommendations are the result of cooperative work in three meetings on 14 March, 17 May and 25 July 2019, led by a strong spirit of determination to deliver real road safety improvements. They all take as a common basis the need to continue to develop a strong legal framework and a sound analytical basis – for example, their successful implementation will require stable road safety governance structures, at national but also pan-African level. They are all based on the Safe System, the state of the art approach to any successful road safety policy. They are also consistent with the road safety related United Nations Sustainable Development Goals (SDGs) for 'Good Health and Well Being' (3.6) and for 'Sustainable Cities (11.2), are supportive of the UN's 12 Global Road Safety Performance Targets, and are aligned with the UN General Assembly's recommendations as set out in resolution A/RES/72/271 adopted on 12th April 2018.

The recommendations in this report provide a powerful framework for joint AU-EU co-operation in road injury prevention. The EU has set a new target to halve road deaths and serious injuries by 2030. This is an ambitious but achievable aim for the AU as well. To ensure progress on this scale will require strong leadership by AU Member States dedicated to the implementation of effective road safety policies. This can be strongly encouraged by the EU, which among its Member States has considerable experience to share, both positive and negative, in road injury prevention.

The report clearly identifies the need for capacity building in road safety management across the African continent; and this should, therefore, be strongly prioritised by the EU through its investments over the decade ahead in sustainable road transport in Africa. Through their

commitment to implementation of these recommendations, the AU and the EU can jointly aim to halve road casualties by 2030.

- **Road safety management and data collection**

Reviews of road safety management capacity and other studies indicate that current institutional management arrangements and activities in Africa at the regional, national, and corridor levels are, in general, too fragmented and insufficiently focused on targeting key road safety problems.

Effective road safety policies and measures, which deliver road safety results, can only be developed using a planned, systematic framework. Best practice indicates that this should be based on the Safe System approach, assigning precise tasks and responsibilities to all actors whether in the planning, design, or implementation phases and making best use of current and new technologies. In this framework, political leadership and commitment from governments and decision-makers is essential and is best manifested in the establishment of a lead agency. Without effective leadership and management capacity, experience shows that even the best strategies and plans exist only on paper and fail to be implemented. At the same time the existence of other reliable and accountable institutions is needed as is the engagement of the national parliament, the business sector and the encouragement of, and support for, strong civil society advocates and non-governmental organisations.

Good practice in road safety management involves the setting of an ambitious long-term Vision Zero goal and measurable interim targets and objectives. These provide the rationale for the critical success factors, such as effective coordination and legislative framework, reliable data and sufficient funding, which should enable low and middle-income countries to “leapfrog” the mistakes made by developed countries in their long and costly path of learning. A broad range of road safety guidance has been produced by international organisations e.g. by the World Bank’s GRSF, SSATP, UN Road Safety Trust Fund⁵ and the World Road Association to assist countries and financiers in addressing key management functions, from capacity building to international cooperation. In addition, global networks such as the Global Network for Road Safety Legislators advocate for leadership and good governance and adoption of a Safe System approach.

- i. Create an African Road Safety Observatory

The existence of reliable and comparable quality data is essential in developing effective road safety policies and measures. To address this issue, key stakeholders (AU, WB, FIA, ITF, SSATP, AfDB, WHO, GRSF, UNECA etc.) are working on the formal establishment of an African Road Safety Observatory (ARSO). The African Union Commission, in collaboration with the SSATP and other key stakeholders, is currently finalising the Observatory’s governance structure and working on its funding mechanism, with significant progress achieved at a recent AU meeting in Durban on 28-29 June 2019, where 39 countries were present. The primary mission of ARSO is to foster cooperation to generate a robust body of road safety data. ARSO is designed to be a political and technical forum where the Member States of the African Union can discuss mobility and safety issues, recommend policies and measures to cut road deaths and serious injuries. It will also encourage African countries to adhere to the UN [12 global road safety performance targets](#).

There is an apparent discrepancy in the level of road crash reporting and data collection across African countries. In many cases, quality data is not available to allow a better understanding of the

⁵ [Global Framework Plan of Action for Road Safety, UNRSTF, 2018, Geneva.](https://www.unece.org/fileadmin/DAM/Road_Safety_Trust_Fund/Documents/UNRSTF_Global_Framework_Plan_of_Action_21_Nov_2018.pdf)
https://www.unece.org/fileadmin/DAM/Road_Safety_Trust_Fund/Documents/UNRSTF_Global_Framework_Plan_of_Action_21_Nov_2018.pdf

road safety issues, or indeed a proper comparison of their performance. Consequently, evidence-based policy and strategy formulation, and interventions in road safety are scarce. There is an urgent need for networking and experience sharing to build capacity in road safety management, but in particular for knowledge transfer based on data collection and analysis. Data collection systems become reliable by harmonising data and methods and by introducing new tools inspired by the best international practices. The creation of sub-regional observatories is also an option, but ensuring that the ARSO gathers data for Africa as a whole would give more visibility to the road safety agenda across the continent. ARSO has also an important role to play in standardised data collection and use of safety indicators in Africa (such as serious and fatal crash data, exposure data and safety performance indicators such as speed behaviour, seat belt and crash helmet use, drink-drive and the safety rating of the road network and the new vehicle fleet). In addition, ARSO could coordinate the use of national safety indicators that are needed as an input to the 12 voluntary global targets. Last but not least, promoting exchanges of experience, creating closer links between data collectors and users, and twinning arrangements could also be an important role of the ARSO, including arrangements between European and African countries, but also intra-African twinning or even tripartite arrangements.

ii. Ratify the African Road Safety Charter and the UN Road Safety Conventions

The African Road Safety Charter was adopted in January 2016. The Charter aims to respond to the growing concern across the continent about road fatalities and injuries. It states, inter alia, that effective action will require the establishment or strengthening of lead road safety agencies; investment in regional road trade corridors that breaks the link between economic development and undesirable impacts such as death and serious injury through systematic mainstreaming of road safety; key management and investment decisions, reflecting strong commitments of national governments to road safety; knowledge transfer and data systems; as well as effective driver and vehicle regulation. In a broader context, internationally recognised road safety standards and rules are codified in [seven UN conventions and agreements](#) managed by UNECE, ranging from road traffic rules, driving permits, road signs and signals, vehicle regulations and inspections to the transport of dangerous goods. The ratification of the UN Road Safety Conventions has of course far stronger legal and economic implications than signing and ratifying the Charter. Adoption of systems reflecting the UN Road Safety Conventions is also one of the global voluntary targets on road safety.

The African Road Safety Charter will only enter into force when ratified by 15 countries. As of July 2019, only 12 countries have signed and one has ratified. One of the obstacles to the ratification of the African Road Safety Charter appears to be a lack of understanding of the instrument and a lack of interest of the Member States. Of course, the ratification of the Charter should also be followed by proper enforcement, but it is nevertheless a sign of commitment and a reference point for further political action. Moreover, less effective traffic rules, signs/signals, vehicle controls and management of dangerous goods are key causes of crashes. In addition, the existence of different traffic rules and regulations of countries leads to difficulties in the seamless movement of goods and services across borders. The ratification and adoption of UN Road Safety Conventions has encountered even more difficulties. The ratification and adoption of these instruments could both be promoted, for example, by linking the funding of projects to the ratification of the Charter, building capacity and raising awareness through high level promotion including use of media or well-known personalities.

iii. Develop national lead agencies

An effective road safety management system requires a proper institutional framework empowered by high-level leadership and sustainable funding for effective implementation of road safety strategies, programmes and projects in order to achieve sustainable improvements. The

multi-sectoral nature of road safety requires careful leadership and management. As international best practices show, a national agency as a strong central point of contact is necessary to take the lead in initiating and coordinating road safety policies and measures. Lead agencies should effectively report national road safety performance, develop strategies, programmes and projects with partners, and coordinate the setting of targets. An effective road safety management system also relies on dedicated and well-trained professionals in many different areas, from delivering the key functions associated with good practice lead agency activity, infrastructure safety through speed enforcement to post-crash care.

The defining feature of a lead agency is the institutional management functions it performs or ensures rather than its structure (see textbox). The lead agency can take many forms such as a stand-alone organisation or a lead unit or department in a Ministry, but research and experience shows that no one lead agency structure or model is better than the next.

Key functions of good practice governmental lead agencies

Leadership, goal and target-setting: Setting goals and targets in full consultation with key agencies and road safety partners; leading the development of multi-sectoral safety strategy, plans and projects.

Coordination: Setting up national coordination arrangements across key sectors; encouraging delivery partnerships between government agencies and with cities and municipalities; supporting the professional and non-governmental sectors; engaging with Parliamentary committees, the business sector and civil society to address goals and targets.

Legislation: Working with partners to ensure a legislative framework that meets road safety task and sets the bounds of road safety responsibilities and accountabilities of key agencies.

Funding and resource allocation: Helping to secure mechanisms and sustainable sources of annual road safety funding and working with partners on business cases for investment.

Promotion: High-level promotion of road safety strategy and meaningful shared responsibility across government and society.

Monitoring and evaluation of performance based on external peer review, inputs from the national crash injury database, surveys and other information; developing measurement tools and publishing annual reports to Parliament.

Research and development and knowledge transfer: Direction of road safety research and development and knowledge transfer through establishing national road safety observatories, guidance, demonstration projects etc.

Road safety management capacity in African countries requires mandated and properly funded governmental organisation to orchestrate the development of national road safety strategies, policies and targets. The multi-sectoral nature of road safety management and the shared responsibility it involves requires careful leadership. Even if national road safety units exist in most African countries, their authority is often limited – it is not always possible for them to “take the lead”, they often lack adequate staffing and resourcing, and they don’t always fully represent the stakeholders’ views. It is essential that all relevant actors are consulted and brought on board and that appropriate, sustainable funded capacity of qualified and skilled human resource is secured. It is also important that the institutional connection of the Lead Agency is sufficiently strong.

iv. Develop and implement national road safety strategies, set targets and key performance indicators

A functional road safety management system requires all public and private partners to actively contribute at all levels seeking inspiration from existing best practice and sharing their knowledge. A national road safety strategy, and action plan built around a performance framework is a useful tool to achieve this goal, as long as capacity to deliver it is assured. The existence of a national road safety strategy is an indicator that road safety is high on the political agenda. The setting of aspirational targets and key safety performance indicators for national strategies can help deliver results-focused road safety work, which is particularly important in funded road safety and infrastructure projects which provide a pragmatic approach to building stronger capacity.

Setting targets and monitoring their implementation has played a key role in the EU to reduce the number of road deaths. We are nearly at the end of the UN Decade of Action, and new global death (as well as serious injury) targets need to be set, hopefully in Stockholm in February 2020. Apart from aspirational targets, clear communication of key performance indicators can help decision-makers to adopt the most appropriate road safety policies and measures, and provide a baseline against which to measure performance. 12 global voluntary safety performance targets have been agreed for the period up to 2030, but – both at African and global level – assistance and capacity building is required to deliver them. International partners may support lead agencies in African through guidance, twinning and project funding for collecting a range of data and addressing the 12 global voluntary safety targets in programmes and projects.

In framing national road safety targets and performance indicators it is essential to encourage the broadest possible engagement in the process of their adoption. Setting ambitious targets requires strong political leadership and this is more likely to occur and be sustained with the widest possible approval of the measures proposed. That is why encouraging dialogue with all stakeholders – starting with local communities and the most vulnerable road users – is so important in building commitment for road safety policies that will meet their chosen target.

v. Support Regional Centres of Excellence for Road Safety, including local academic institutions

Africa faces a critical gap in qualified road safety professionals in all subsectors. This is one of the main reasons for African countries not having effective road safety management systems or strategies. The need for human resource development in road safety is, therefore, compelling. AfDB has taken the initiative in funding the creation of regional centres of excellence for road safety in Cameroon and Tanzania that would help to train road safety professionals in all areas (road safety management, infrastructure safety, road users' safety, vehicle safety, post-crash response) and undertake consultancy services and research works. The centres of excellence would also help the transfer of knowledge and skills, as well as the exchange of best practices. The regional centres of excellences could have "antennas" in every country, possibly located in the lead agency.

Africa's road safety performance is lagging behind due to mainly the lack of available local knowledgeable, skilled and qualified professionals, which will also be necessary to successfully implement the Road Safety Cluster's recommendations. Most of the recommendations have capacity building as their core activities. This can be handled effectively by the creation of Regional Centres of Excellence preferably housed within suitable existing institutions for the tailored training of professionals. There is also a need to develop minimum capacity in every African country to analyse data, undertake applied research and consider the latest evidence on risks and effectiveness of different measures. Thus, the centres will also set up regular research results publications to popularise findings and guide experts and countries. These regional centres of excellence need good governance structures, including a strong and powerful advisory board with

African and non-African experts. Even national lead agencies could benefit from such an independent advisory structure.

- **The Safety of infrastructure**

The Safe System is based on the premise that people will continue to make mistakes and that all parts of the system must be improved to ensure that if one part fails, others will still provide protection to road users and avoid deaths and serious injuries.

In terms of infrastructure, this means not just better new roads and better maintenance but 'forgiving' roads, designed to mitigate the consequences of errors. At the same time the protection of vulnerable road users should not be forgotten: many new roads in Africa, in particular outside towns, are still only designed and built with cars, buses and trucks in mind – when actually such roads are also used in practice by Vulnerable Road Users (VRUs) - pedestrians, powered two-wheelers and cyclists.

- vi. Ensure safety ratings on new and rehabilitated roads and develop safer roads

The building and maintenance of road infrastructure is still too often disconnected from road safety considerations (again, such as the needs of VRU, which the data suggests is a growing priority). European experience and international best practices show that to build genuinely safe infrastructure contributing to a significant reduction of road deaths and serious injuries, safety concerns should be paramount in every phase of the infrastructure project, from planning, through design and construction to maintenance. Risk rating of roads by well-used and tested management tools, such as iRAP, aims to assess and demonstrate how well a road protects its users from deaths and serious injuries. The rating evaluates the level of safety that is 'built into' the road. In relation to new and upgraded roads, safety considerations need to apply throughout the whole project cycle through systematic road safety design, impact assessment, audit and inspection. This engages the responsibility of governments as well as development banks and all road developers on the continent.

Road safety investments in regional road traffic corridors and interurban roads – the busiest roads – present the best opportunities worldwide for safety engineering intervention and achieving road safety results. These corridors have high strategic priority, attract large investments, and are particularly amenable to targeted treatments. Typically, about 50 percent of deaths take place on just 10 percent of the road network. That portion is characterised by high traffic volumes and speeds and often an unmanaged mix of motorised traffic, non-motorised users and mixed-speed road environments. Management guidance and safety rating tools have been developed, which can assist African countries in improving the safety of their developing networks on pan-African roads, notably within the Programme for Infrastructure Development in Africa (PIDA). This implies the systematic and explicit adoption of these tools and practices in favour of road safety in the framework of PIDA formulation. This would give a strong signal of the continent's commitment to road safety.

The challenge is to use accepted risk rating methodologies to raise the safety level of African roads, indeed to ensure that unsafe roads (i.e., those that do not address, and in some case exacerbate, road safety problems) are not built. Much more awareness of the role of safety for infrastructure is needed, both in Africa and in the international donor community. Rating of roads needs to be streamlined, standardised and internalised among multilateral development banks investing in road infrastructure, not least since different designs for different road sections along a corridor are often supported by different financiers: there is still a lack of harmonised methodology accepted and trusted by all. Safety rating of roads is often seen as an additional task rather than a condition for implementation and support. To further demonstrate the social, economic and financial value

of prioritizing road safety in road investment, flagship projects and programmes that address road safety needs successfully should be developed systematically to promote harmonisation.

vii. Build capacity for infrastructure road safety assessment tools and techniques at the local level

Overall, African countries need to do more to ensure that road infrastructure is safe. The safety of new and existing roads needs to be systematically assessed, taking into account the needs of all road users, including powered two-wheelers, pedestrians and cyclists. To systematically assess new and existing roads, to build and maintain them safely, African countries cannot rely solely on external expertise. In-house capacity building should be part of all major infrastructure investments.

The objective here is not to prescribe in detail what standards and safety elements African countries should use to increase the safety of their roads, although there are several aspects that the construction and maintenance of safe road infrastructure need to cover. Internationally recognised guidelines exist in many fields of road safety, but the practical work needs to be undertaken at the local level. This role can also be taken up by the regional centres of excellence in combination with their national ‘antennas’. It is also an opportunity to involve systematically engineering schools and universities to train new construction engineers. One of the regional centres of excellence might be asked to take the lead, whilst other regional centres could take the lead in other areas. Overall, capacity building should thus be an integral part of the development of road infrastructure. Investors need to promote not just stand-alone projects but also capacity as part of them. In this respect, the pan-African corridors can work as test cases for developing best practices and shared understanding on the benefit of road safety improvements. Corridors also provide opportunities for construction engineers and road safety experts to work together. The African Union Commission needs to play its overall coordination role. These activities can also strengthen the international cooperation between neighbouring countries, and may facilitate funding.

- **The Safety of vehicles**

Safe vehicles play an important role in averting a crash and providing crash protection to reduce the likelihood of serious consequences if one happens. Typically, research indicates that improvements in vehicle safety can contribute around 40-50% to the reduction of deaths and serious injuries on the roads. Quality vehicles, including cars, motorcycles and vans, as well as their maintenance in good conditions, help to reach not only road safety but also environmental goals, as sets out the planned global programme for promoting global transfer of safer and cleaner cars, with an initial focus on Africa based on the comprehensive research carried out by UN Environment. When dealing with vehicle safety, the socio-economic consequences of the trade of both new and used cars also need to be taken into account.

viii. Apply vehicle standards and safety ratings for new and used vehicles

The UN’s vehicle safety regulations developed by the Global Forum for the Harmonisation of Vehicle Regulations (UNECE WP29) provide the legal framework for the prevention of traffic crashes and the protection of car occupants and other road users. They cover a range of vehicle standards that UN Member States can adopt. To complement the road safety related SDGs, UN Member States agreed, in November 2017, on a set of 12 global voluntary global performance targets on key risk factors and service delivery mechanisms to reduce road traffic fatalities and injuries. Target 5 for vehicle states that by 2030, 100% of new (defined as produced, sold or imported) and used vehicles must meet high quality safety standards, such as the recommended priority UN Regulations, Global Technical Regulations, or equivalent recognized national performance requirements. There are a set of seven international vehicle safety standards that are

increasingly accepted for manufacturing or assembling passenger vehicles and which are recommended for early adoption by the UN and other international organisations.

Africa's emerging economies are characterised by rapid motorisation and a very high risk of road crashes. Building a market for safe vehicles in Africa requires the adoption and implementation of these vehicle standards. This could be reinforced by consumer awareness initiatives such as the 'Safer Cars for Africa' project managed by the Global New Car Assessment Programme (GNCAP) which has been carrying out the continent's first ever independent safety ratings. Currently the 'Safer Cars for Africa' tests are conducted only on new cars, and the data is therefore an indication of the relative safety level of used cars of the same make, model and model year destined for export as used vehicles.

Africa must reach an acceptable level of safety for both new and used vehicles. As a first step, African countries need to set harmonised safety criteria for vehicles and adopt key UN vehicle safety regulations. New vehicles should be required to pass the recommended list of UN regulations through the introduction of type approval requirements that can be facilitated through the UNECE 1958 Agreement. This would prevent the sale or import of new vehicles in Africa without an acceptable level of safety and the required safety features (seat belts, air bags, active safety systems etc.). African governments could also require a mandatory 'Safer Cars for Africa' star rating label and a ban on any zero rated vehicles. This could be coupled with the introduction of incentives for purchasing five-star GNCAP rated cars especially for private and public fleets. It is also worth noting that in African countries, a high percentage of new vehicles is sold to public authorities. Advantage could be taken of the opportunities offered by public procurement launched by both governments and international agencies. As regards imported used vehicles, these should also be required to meet the UN's priority regulations which have now been applied for many years in those developed countries that export vehicles to Africa. In parallel, these countries – from which most used vehicles originate – could also help ensure that quality used vehicles arrive at their new destination with all safety features intact. In that way, a compulsory technical visit could be recommended before all processing for exportation. Then every car export document should include a "safe car clearance". In the importing countries, the focus should be on the ports of entry.

ix. Establish a reliable system for regular technical controls and inspections

In Africa, few users buy new vehicles. The fleet of vehicles circulating on African roads is composed mainly of second-hand vehicles sometimes over 30 years old. The European Union is the second largest exporter of used vehicles in Africa after Asia. Technical defects of used vehicles contribute heavily to road crashes and their severity. Roadworthiness testing is, therefore, an important part of road safety. Regular technical control of vehicles not only responds to safety challenges but also to the environmental concerns of the local population. It is crucial to ensure that registered vehicles fulfil some minimum requirements and that those features are kept, in a reasonable way, during the life of vehicles. The planned programme for promoting global transfer of safer and cleaner cars mentioned in section 8 specifically includes the establishment of control and inspection procedures in both exporting and importing countries.

In Africa, there is a very high percentage of used vehicles imported from third countries. In addition, some of these vehicles are illegally modified after they reach the African continent. Therefore, there is an urgent need to raise roadworthiness standards and put in place effective controls. While the exporting countries should ensure that all exported vehicles are roadworthy, the importing countries need to ensure that nothing has been modified en route. On top of controlling vehicles on departure and on arrival, it is necessary to ensure as well the performance of the fleet of vehicles by periodic and roadside inspections. Furthermore, vehicle inspection requires national legal metrology services; no market can function without correct measuring and without common units

of measurement. This is a priority for countries where such services are not present today. Thus, more qualified technicians are needed. Training of technicians is an important prerequisite for the adequate functioning of vehicle inspection and vehicle repair.

- **The safety of road users**

Pedestrians, cyclists, motorcyclists, and children and the elderly, are particularly vulnerable road users. The safety of all road users should be taken fully into account in transport and health policies and measures, from infrastructure design to enforcement. Pedestrians and cyclists in particular need to be safely segregated from motorised road users, and more focus needs to be put on the safety of young people, motorcyclists and other powered two-wheelers – by far the highest road user risk group and one that will surely grow in size in the years to come. Road users and their representative civil society organisations should play a stronger role to ensure that their safety is properly reflected in road transport policies and measures.

Safe road use is also an important part of the Safe System. Every road user is indeed responsible for his or her behaviour on the roads, i.e. observing the speed limits and going slower eg in poor weather, driving without alcohol or drugs, driving undistracted, using seatbelts, child restraint systems and other protective equipment. Even if different categories of road users face different challenges and risks on the roads, their failure to respect the most important road traffic rules contributes to the occurrence of many crashes. Targeted education, driver licencing and continuous awareness raising, together with effective enforcement of traffic rules, can have a strong positive impact on the capacity and willingness of road users to make safe use of roads and vehicles.

- x. Empower road users, establish road safety as a right and responsibility, including for vulnerable road users

In Africa, even if sustainable modes of transport (walking, cycling and mass transportation) are more and more encouraged, vulnerable road users (VRU) do not enjoy anything like the same level of protection as in the EU. Moreover, if sustainable modes of transport are promoted without proper safety measures (e.g. separating VRU from protected users such as car motorists), the road safety impacts can be even worse. In Africa, half of road safety victims are vulnerable, unprotected road users, such as pedestrians, cyclists and motorcyclists. The region has the highest proportion of pedestrians among total deaths (40%). The share of motorcyclists on the African roads is expected to grow substantially in the future, and therefore their protection will also have to be given higher priority. In addition, road users do not own the means to hold national sectors in charge of road safety accountable.

VRUs have as much right to safety on the roads as any other road user – and of course, they are also responsible for their safety and the safety of other road users. The best approach to ensure their safety lies with the adoption of the Safe System approach, putting in place several layers of protection to prevent death and injuries in case of a crash, but also preventing crashes by teaching and enforcing appropriate behaviour. The contribution of vulnerable road users to sustainable objectives such as CO₂ reduction, improved air quality, and less congestion should also be recognized. This would fundamentally change the perspective of those responsible for designing and implementing transport policies and measures. Proper infrastructure design, effective education of road users (including professional drivers), police enforcement of key road safety rules, effective VRU protection in vehicles, speed management and swift access to professional emergency assistance are all contributing factors to the safety of vulnerable road users. Representatives of the civil society, as well as local communities, also need to speak up and make their voices heard.

xi. Ensure strong and consistent enforcement by traffic police

Ensuring compliance with key safety rules addressing risk behaviours through effective enforcement combined with education and publicity is a must to achieve optimal safety results. Police forces need to be trained and equipped with appropriate resources to do their job efficiently but also to be trustworthy. Data on intermediate safety performance indicators (observance of speed limits, helmet and seat-belt wearing rates, use of child restraint systems, etc.) help assess the effectiveness of enforcement measures. It is mainly by these means that we can evaluate how effectively traffic law is implemented and enforced.

Legislation on road safety is only as good as its observance and enforcement. International best practices can provide a ready-made basis to help to put in place the necessary procedures and practices to ensure even, predictable and trusted enforcement. The EU and the AU should closely work together to find the best possible ways of sharing knowledge and best practices. Traffic police, in most African countries, not properly trained and equipped, and are frequently poorly paid, creating a risk for illicit payments to evade traffic penalties. Avoiding this and building up trust in police forces will be an important challenge. Enforcement of traffic law in African countries could also gain in effectiveness and efficiency in developing a network of traffic police forces. The experience of the European Traffic Police Network (TISPOL) can be transferred through twinning programmes to demonstrate how national police forces can cooperate across borders. Finally, it should be recalled that road safety campaigns tend only to be effective when they accompany reinforced enforcement measures to raise public awareness on road traffic rules and to increase public acceptance of the work of police officers.

xii. Put in place effective driver training and driving licences, with a special focus on professional drivers

Effective driver licencing aims to limit the exposure to risk of death and serious injury amongst young, novice drivers and riders, particularly in the early years on the roads when they are most at risk. Better training within this framework aims to improve their safety and ability and raise awareness of road safety risks in a national context. Another main target group is the one of professional drivers who have greater public responsibility when transporting passengers and dangerous goods, but who are disproportionately less involved in serious and fatal crashes.

Proper training of road users starts from the beginning. Although young people are newcomers as car drivers or motorcycle riders, they are not new to the roads. They already have extensive experience in other traffic roles. Moreover, they have observed as passengers the way others drive and have been confronted with many driving violations of other road users, most obviously as pedestrians. On the other hand, a special focus needs to be put on the training of professional drivers, knowing that road crashes are leading causes of work-related death. Their role would become even more important with the promotion of public transportation contributing to decrease deaths among vulnerable road users. An additional challenge is that for small transport companies, driver training can be very expensive. Support could thus be given for the development of sectoral training capacities, or incentives could be provided for the take up of professional driver training courses.

- **Post-crash care**

Post-crash care is a key element of the Safe System. It aims to reduce the severity of injury once a road traffic crash has occurred. For major injuries, clinical experts define the post-crash care needed as the chain of help starting with action taken by the victims themselves or more commonly by bystanders at the scene of the crash, access to the prehospital medical care system, emergency rescue, pre-hospital medical care, trauma care and helping road crash victims who have suffered

injury to re-integrate into work and family life. The effectiveness of this chain depends upon the strength of each of its links. Minor injury patients will often need the help of a general practitioner, and optimal medical and psychological follow-up care is important to alleviate pain and distress.

Post-crash care presents special challenges for low and middle-income countries as the rate of motorisation gradually increases. Provision of swift access to the emergency medical assistance in rural settings continues to present challenges for many countries, irrespective of socio-economic status.

xiii. Ensure effective post-crash care, apply WHO protocol and develop training for professionals

Post-crash care is crucial to reduce the consequences of a road crash. Death may be avoided and the severity of an injury may be reduced if the victim receives professional care in time. Successive WHO publications provide clear guidance on how post-crash response needs to be delivered. The integrated approach takes into account not only the physical but also the psychological and legal needs of those affected – the survivors and their families. The WHO Guidelines⁶ for essential trauma care seek to set achievable standards for trauma treatment services, which could realistically be made available to almost every injured person in the world. They also define the necessary resources to assure such care, including staffing and training, infrastructure and equipment.

In African countries, appropriate health care facilities involving dedicated vehicles and the most modern equipment are not always available. However, in the short term, and given the importance of this topic to overall survival rates, people with minimal medical training can also take care of the victims or transport them to the nearest hospital. Midwives, police officers or taxi drivers, trained in first aid, can take up this role. Promoting first aid training in schools and as part of driver training could also be an option, knowing that the Red Cross has developed a specific first aid manual for Africa that takes into account local conditions. The first aid certification of the International Red Cross should be promoted. In many African countries, a centralised number for emergency response is also missing.

⁶ <https://www.who.int/emergencycare/en/>

3.2. Recommendations

3.2.1. Road safety management and data collection

i. Create an African Road Safety Observatory

By 2020, the African Road Safety Observatory should be fully and formally established under the auspices of the African Union. Concrete plans for its sustainable financing at the pan-African level should also be set by the same date. By mid 2020, the AUC with the support of the EU and other relevant partners should arrange a comprehensive concept of the ARSO including among others an appropriate governance structure as well as operational arrangements. By the end of 2020, project partners should ensure the knowledge transfer from the EU-funded Safer Africa project to ARSO, and create an expert community or 'ARSO Working Group' together with international organisations, multilateral development banks and member countries. The working group would be responsible for defining protocols and quality assessment procedures and taking forward the 2019 work plan for setting short and long-term targets to measure progress. Beyond this, the tasks of the ARSO could expand, for example to make twinning arrangements between the two regions to improve the capacity for data collection and monitoring, data sharing between key actors, data base management as well as the appropriate software and relevant material and to identify and promote research-based interventions.

→ AU to lead with support from EU, SSATP and WHO

ii. Ratify the African Road Safety Charter and the UN Road Safety Conventions

African countries are urged to ratify the Road Safety Charter and to then put in place appropriate enforcement measures. They are also encouraged to adopt, implement and enforce the seven core UN road safety conventions and agreements, including those on the transport of dangerous goods and UN recommendations for priority vehicle safety measures. As a first target, the intention is that an additional six AU Member States adopt and implement these UN legal instruments by 2021. In parallel, they should set up a system of reporting on them. In addition, the African Road Safety Charter should also be promoted and ratified by all African countries by the end of 2021. In this process, the leading role is to be taken by the AUC, but UNECA and the UN Special Envoy for Road Safety should continue to help raise awareness and obtain the necessary political will. Finally, the harmonisation of African road safety regulations should be promoted by the AU on a continuous basis to facilitate safe road transport across borders and spread internationally recognised best practices.

→ AU to coordinate the signature and ratification of the Charter, as well as the accession to, and implementation of, the core Conventions and Agreements, with support from UNECA, the UN SG's Special Envoy for Road Safety, and UNECE. Donors and the EU to encourage the process and include the issue in the policy dialogue with their country partners.

iii. Develop national lead agencies

It is very important that a national lead agency is set up in each country, if necessary following a road safety management capacity review. It should be suitably empowered with the authority to coordinate, sustainable funding, and strong and accountable leadership. If not already in place, we recommend, as a first step, that by 2020, the lead agency's role and functions should be mandated in legislation, and a separate budget assigned to their operation. Furthermore, donors could support the establishment of appropriately resourced lead agencies as a precondition for infrastructure and other investments, with current arrangements, externally benchmarked against international best practices.

→ *AU to promote and coordinate good practice standard legislative blueprints for lead agencies and related coordination arrangements with funding from EU, SSATP, the World Bank and donors, where possible, according to the relevant programming exercises.*

- iv. Develop and implement national road safety strategies, set targets and key performance indicators

In preparation of the next Global Ministerial Conference on Road Safety, to be held in Stockholm in February 2020, African countries should consider the adoption of the recommended Safe System approach towards zero road fatality and serious injuries. This could be the basis of developing effective road safety strategies at a national level. They are also encouraged to renew the current death and injury targets for the decade to come and support the introduction of key safety performance indicators. In parallel, the 12 global voluntary performance targets should become part of the reporting system to be established within ARSO by 2020. Similarly, the AUC is encouraged to review the African road safety action plan for the Decade 2011-2020 which was based on the Action plan of 2011-2020 UN Global Decade for the Road Safety. In that regard the AUC should develop a Strategic Direction for the new Decade and highlight the Global commitments to give a strong political involvement at the continental level.

→ *AU to coordinate, working with other members of the Road Safety Cluster, to promote the Safe System approach and principles. EU and other international stakeholders to consider providing technical assistance to countries in the form of transfer of knowledge and best practice to help them (notably lead road safety agencies, traffic system “owners” such as road authorities, the police, and regulating and certifying agencies) prepare their road safety strategies and targets in accordance with the relevant continental framework and harmonised documents. EU and other international stakeholders to consider the organisation of a side event in the margins of the UN Conference in February 2020, together with the AU and interested African governments and NGOs.*

- v. Support Regional Centres of Excellence for Road Safety, including local academic institutions

The support and promotion of regional excellence centres in the different African regions, as well as in local academic institutions, is also recommended to build local capacity in professional training, consultancy, data collection and analysis, and research. Knowledge and multidisciplinary skills related to road safety could be transferred from Europe to Africa, for example, by twinning between the leading institutions (EU, AUC, UNECA, SSATP, AfDB, etc.). The first centres of excellence should be in place and the first twinning arrangement should be launched in the second half of 2020.

→ *AfDB to lead with collaboration or/and funding from EU, AUC, the World Bank and other international donors, where possible, according to the relevant programming exercises.*

3.2.2. The safety of infrastructure

- vi. Ensure safety ratings on new and rehabilitated roads and develop safer roads

Road infrastructure safety should be rated systematically for the whole project cycle whether for building new roads or upgrading roads, notably within PIDA. All actors involved in infrastructure development in Africa (international financial institutions, bilateral financiers, governments, and regional organisations) should apply road safety conditionality, also on institutional management. International partners should help African countries adopt a system for rating road infrastructure,

such as iRAP, regularly by 2025. As a second step, the countries may consider using a minimum safety target for roads in line with the UN recommendation (target of 3*) by 2030. International sponsors of road infrastructure should be encouraged to ensure that they only subsidise new roads if road safety is sufficiently guaranteed. The centres of excellence might develop a template for public-private partnerships in this context. Financial institutions and donors are called upon to build concrete, long-term pipelines of bankable programmes and projects targeting road safety, based on sufficient financial and technical support throughout the whole project cycle from design to implementation to impact evaluation.

→ ***AU to take the lead with the EC and other international partners and in particular the AfDB, the World Bank and the EIB to propose a harmonised system for rating road infrastructure in Africa, and identify jointly projects and programmes that contribute to safer road infrastructure to be promoted for financing. All Donors to effectively use the harmonised and jointly adopted systems within all their projects on the continent.***

vii. Build capacity for infrastructure road safety assessment tools and techniques at the local level

There is a clear need to develop national and regional capacity in road safety along with the newly built or rehabilitated major infrastructure in Africa, notably within PIDA. The creation and sharing of knowledge on how to manage, design, build and maintain safe road systems that take account of the needs of all road users must be a priority, and capacity building should become an integral part of all funding decisions with dedicated financial envelopes. This specific objective should become part of discussions on infrastructure development involving all financiers and all countries concerned.

→ ***AfDB to lead together with the EC and other international partners (EIB, WB) and the AUC to develop and disseminate good practice guides on managing, designing, building and maintaining safe road infrastructure, and to launch pilot projects for local capacity building.***

3.2.3. The safety of vehicles

viii. Apply vehicle standards and safety ratings for new and used vehicles

An acceptable level of safety of new and used vehicles sold in Africa should be reached. To help Africa meet the UN global performance target for vehicle safety by 2030, African Governments should be encouraged to apply the UN's priority regulations to both new and used vehicles, and promote consumer awareness initiatives to encourage the purchase of safer vehicles. Exporting countries should ensure – by legislation or voluntary commitments – by the end of 2020 that used cars that fail to meet the applicable UN priority vehicle regulations or have score zero-star in an NCAP test are banned from exportation. This should also apply to vehicles close to their end of economic life and vehicles with severely compromised structure following a crash. Given that enforcement and control is mainly the responsibility of the African States, proper capacity building in vehicle regulatory systems will be necessary, in particular in the ports of entry. As there is a strong interest from organisations such as CITA, EUCARIS, ACEA, GNCAP to work with the AU on vehicle standards, the first pilot projects could be launched by 2021. In addition, as information and data on both new and used vehicles is essential to ensure the fitness of the fleet, access to the UN database DETA and other information sources should be encouraged and facilitated.

→ ***AU in collaboration with GNCAP to coordinate pilot projects with other interested stakeholders, including UNECE, UNECA. AU to promote the accession to, and implementation of, the UN agreements on vehicle regulations and inspections with support of the UN SG's Special Envoy for Road Safety and technical assistance of UNECE and UNECA.***

ix. Establish a reliable system for regular technical controls and inspections

Importing countries should make it mandatory by 2022 that used vehicles are inspected before export to ensure that these vehicles meet the UN's priority regulations for occupant and other road users' protection. These safety features should cover, as a minimum, seat belts, air bags and active safety systems such as anti-lock braking system (ABS) and electronic stability control (ESC). In addition, a scheme to ensure the roadworthiness of vehicles by periodical and roadside inspections following the 1997 UN Agreement on vehicle periodical inspection and reciprocal recognition is necessary to ensure the fitness of the fleet. The AU can play a pan-African role in developing overall guidance in this field. Exporting countries should allow recipient countries electronic access to the registration data of their vehicles. The provision of non-personal vehicle registration data can be very helpful to check that vehicles identifiers (engine and chassis number) are not tampered. International organisations (such as CITA, EGEA) are ready to work with the African States and regional organisations on a 2-3 year timescale.

→ ***AU to collaborate with CITA to take the lead in cooperation with EGEA and GNCAP. AU to promote the accession to, and implementation of, the 1997 UN Agreement concerning the Adoption of Uniform Conditions for Periodical Technical Inspections of Wheeled Vehicles and the Reciprocal Recognition of Such Inspections with support of the UN SG's Special Envoy for Road Safety and technical assistance from UNECE and UNECA.***

3.2.4. The safety of road users

x. Empower road users, establish road safety as a right and responsibility, including for vulnerable road users

Road users and their representative civil society organisations need to be empowered with the means for being involved in setting national road safety strategies; and secured with the means that they could use to hold accountable their national sectors responsible for road safety. Pilot projects that cater for the specific needs of each type of VRU and the risks they face should be launched by mid-2020 in partnership with African countries, especially around high-risk zones, such as schools and in residential areas, dangerous crossings, transport hubs, rural roads use by all road users. These best practices could later spread across the continent, perhaps via a pan-African initiative, recognising road safety efforts made by different actors and enabling the exchange of good practices across the continent. The 'Safe to School – Safe to Home' programme for example, designed by GRSP, incorporates assessment of road safety conditions, the installation of appropriate and low-cost local traffic engineering improvements, extensive road safety education for children, parents and the community, together with enhanced enforcement of helmet wearing, parking restrictions and speeding. It is one of the most comprehensive initiatives and a good example to follow. Other examples include the treatment of dangerous crossings, management of transport hubs, safety improvement of rural roads etc. It is equally important that representatives of the civil society have access to the means and resources necessary for their effective work, including transparency of measures, data, political and financial support. A sharing platform (website) could be built by mid-2020 to gather road safety commitments and best practices in Africa.

→ ***SSATP to launch pilot projects in high-risk zones for the protection of vulnerable road users, taking into account the specificities of each type of VRU. A pan-African road safety platform to share best practices and recognise efforts and commitments should be launched under the auspices of the AU with the active involvement of African governments and the civil society.***

xi. Ensure strong and consistent enforcement by traffic police

TISPOL can share knowledge and best practices in traffic law enforcement by initiating at least three national or regional twinning activities with its African counterparts by 2020. These activities could also support specialised training of police officers. Combined with effective enforcement of traffic rules, systematic and nationwide road safety campaigns should also be promoted. The African Union, together with international stakeholders, such as FIA, could develop by the end of 2020 a general road safety campaign to be adapted to national circumstances by its Member States. These campaigns should target the most important groups of road users and address the main risk factors on the roads, such as speeding, drink and drug driving, distraction, non-use of seatbelts and other safety equipment.

→ ***AU to collaborate with TISPOL to start twinning activities with African national police forces (e.g. Federal Road Safety Corps, Nigeria) with a view to build capacity and implement effective enforcement activities. Nationwide road safety campaigns to be coordinated with enforcement actions and launched by African countries with the help and guidance of WHO and FIA.***

xii. Put in place effective driver training and driving licences, with a special focus on professional drivers

Quality licensing and training of road users should be promoted, especially the training of professional drivers. It is important to define the key topics that have to be covered in driving tests and to provide minimum rules for driving test examiners. African countries might draw on some of the driver training and education experiences of the EU and its Member States. It is equally important to introduce a system of qualification for professional drivers with a strong focus on road safety and the safe maintenance of vehicles, permanent training, and repeated training after offences. Proper qualification of drivers should be promoted in particular in long distance operations and in public transportation. The African Union could take the lead in developing guidelines by 2021, based on best European and international practices, for both licencing of road users and training of professional drivers.

→ ***AU to lead in putting in place effective driver training and driving licencing, with the support of the EU Member States.***

3.2.5. Post-crash care

xiii. Ensure effective post-crash care, apply WHO protocol and develop training for professionals

African countries need to develop appropriate instruments to improve the quality and capacity of emergency services and the support to seriously injured or disabled people by road crashes. If trained professionals and dedicated vehicles are missing, a network of laypeople, trained in first aid, can also help. Creating or upgrading and staffing first aid facilities at rest areas alongside corridors could help too. By 2022, the African Union could develop an emergency response protocol, based on the WHO guidance. National protocols on post-crash response need to include measures on the psychological and social support of survivors. International best practices are valuable sources for African partners in this field. In parallel, the AU as a coordinating body could launch pilot projects in different African countries to set up a network of laypeople trained in basic health care. Twinning activities between European or international and African partners could be launched in the coming two years on how to train health care professionals in emergency care, where appropriate facilities are available.

→ ***WHO and AU to lead in spreading best practices in trauma care and developing training for laypeople and professionals.***

4. Aviation

4.1. General context

On 12 September 2018, on the occasion of his State of the Union Address, President Jean-Claude Juncker proposed a new 'Africa – Europe Alliance for Sustainable Investment and Jobs' to substantially boost investment in Africa, strengthen trade, create jobs, and invest in education and skills.

The Commission President is encouraging a radical shift in the way Europe and Africa work as partners, focusing more on the respective economic potentials and including the mobilization of the private sector.

Therefore, the Alliance is promoting a series of initiatives aimed at unlocking private investment and exploring the huge opportunities that these initiatives can have in yielding benefits for African and European economies alike.

This Alliance is not a stand-alone initiative. It is part of the wider set of Africa-EU relations and strategic frameworks linking Africa and Europe, such as the United Nations 2030 Agenda and its 17 Sustainable Development Goals, as well as in the relevant policy frameworks of the African Union (Agenda 2063) and the EU (Global Strategy, European Consensus on Development).

More specifically, it is a key element to deliver on the agreed commitments of the African Union-European Union Abidjan Summit Declaration and is also part of building a strong African pillar in the Post-Cotonou framework. It is equally to be considered in the context of developing partnerships in North Africa under the European Neighbourhood Policy.

One of the initiatives to ensure a quick and tangible implementation of the Africa-EU Partnership is to bring together African and European public and private sector, financial operators and academia on a sectoral basis to examine and support strategic developments in four critical economic areas: Agriculture, Digital Economy, Energy and Transport and Connectivity. Four Task Forces were therefore created with the aim to promote an open and frank dialogue and trigger ideas and recommendations on how to enhance cooperation in areas of common concern and interest.

Indeed, Transport and Connectivity were identified as an obvious key driver for economic growth and mobility of people and goods. In order to ensure the best use of resources and a pragmatic approach, the European Commission proposed the structure of "clusters" reflecting the policy areas of highest political interest and in which the two sides are already working.

During the African Union (AU) summit in Addis Ababa on 28 January 2018, African governments have formally unveiled an initiative intended to advance a single market for air transport across the continent. The initiative – the Single African Air Transport Market (SAATM) – is the first of 12 flagship initiatives on the AU's agenda 2063.

At present twenty-eight (28) African countries out of 55 have subscribed to the SAATM and to the prioritised action plan for 2019-2020. Sixteen (16) of these countries have signed a memorandum of implementation that formally opens their markets and simplifies intra-African-air-transport liberalization by removing all restrictive provisions of their bilateral agreements.

The EU is supporting this initiative and the creation of such a common African aviation market. The development of the aviation sector will make a vital contribution to African economies by creating jobs and growth, increasing connectivity, promoting tourism, reinforcing regional and social cohesion, and enhancing the sustainable development of African airlines.

The creation of the EU's aviation single market provides a valuable contribution and interesting experience to the discussion. For example, the EU experience shows that liberalisation must be accompanied by a common set of rules guaranteeing a level playing field and the respect of high standards in particular in terms of safety and security.

The aviation cluster meeting organized on 24 January 2019 brought together more than 20 key aviation players from Africa and Europe to exchange their views on SAATM. The brainstorming discussion was organized around the following questions:

- What do you see as the main challenges to make the creation of SAATM a success? What are the main obstacles?
- What do you see as the main contribution from your organisation to the functioning of the SAATM?
- What do you see as the key actions to make progress with SAATM in the next five years?
- What are the challenges in terms of aviation infrastructure developments?

On the basis of the ideas gathered during this meeting and follow-up discussions among its members, this report aims to contribute to the identification of the main challenges to make SAATM a success and to propose actions in line with the prioritized SAATM action plan for 2019-2020 which was updated in Dakar Meeting on 28-29 January 2019.

4.2. Recommendations

4.2.1. Aviation as a national priority

The different levels of development in aviation among African countries also represent a challenge for the establishment of SAATM. However being a key vector for economic development, aviation should be considered a national priority and a national aviation strategy should be developed for each country. This strategy should involve all concerned actors (tourism, finance, foreign affairs, health, economy ...) ensuring that they work together in a coordinated way. The lack of a national aviation strategy would lead to missed opportunities.

The publication of the SAATM handbook by IATA jointly with AU and AFCAC is a good tool for explaining what SAATM is about. In the same vein, the study on Socio-Economic benefits of air transport liberalization conducted for 12 African States showed the potential benefits of opening the market and creating common rules. Any type of advocacy for the creation of SAATM should therefore be intensified. It is important to highlight to decision makers also what they are losing and not only talk about potential gains.

→ ***It is recommended to create advocacy teams in order to promote SAATM and bring aviation into the centre of the policy debate and priorities in African Countries. Also to establish a coalition of front-runner States and start implementing SAATM provisions with these States. This advocacy work should reinforce synergies between all the actors concerned and make a link to the aviation master plan as referred under point 2.2 and to education and training as described under capacity building (point 2.7).***

4.2.2. Infrastructure gap analysis

IATA estimates that over the next 20 years, passenger demand is set to rise by an average of 5.7% per year and that the African aviation market will reach 350 million passengers in 2035 (compared to 127 million in 2014).

Infrastructure will need to be able to cope with the expected growth. Infrastructure is key and central. As highlighted by the African development bank (AfDB)⁷, Infrastructure development is a key driver for progress across the African continent and a critical enabler for productivity and sustainable economic growth. It contributes significantly to human development and poverty reduction. On the contrary the lack of infrastructure increases the cost of doing business.

As a continental initiative, the Programme for Infrastructure Development in Africa (PIDA) provides a common framework for African stakeholders to build the infrastructure necessary to integrate the continent physically, economically and socially, offering opportunities to boost intra-African trade, create new jobs for Africa's growing population and improving overall socio-economic development on the continent.

It is essential to establish an inventory of the most urgent needs in term of infrastructures and transition requirements and to develop a long-term gap analysis. The outcomes of the Aviation Infrastructure for Africa Gap Analysis conducted by ICAO and validated at a workshop in March 2019 in Abuja, Nigeria can serve as a basis for this purpose. This gap analysis exercise is covering airports, air navigation services and aircraft fleet capacity and crew.

⁷<https://www.afdb.org/en/knowledge/publications/tracking-africa%E2%80%99s-progress-in-figures/infrastructure-development/>

Today there are significant limitations both at airport and air navigation service levels. Developing adequate and efficient infrastructure will also assist African economies to increase overall productivity, especially in manufacturing and service delivery.

- *The results of the gap analysis conducted by ICAO should be taken into account by States and Regional Economic Communities when preparing their national or regional Aviation Master Plans. An AUC/ICAO infrastructure plan under the prioritized Joint Action Plan should also be explored. And the AfDB is considering supporting the development of a continental plan. International financial institutions should also be included in the strategic discussions of such plans, with the view to mobilizing their technical and financial support.*
- *Compared to more developed regions, Africa could leapfrog to new, sound technologies, leveraging the best innovations from around the world, provided they get support to transition from current technologies and procedures to new ones.*
- *It is important to ensure that major aviation infrastructure projects are included in the PIDA priority action plan. Investment programmes and concrete projects that stem from abovementioned plans should be shared with, and prioritized by, international financial institutions and donors.*

4.2.3. Lack of access to financing

Despite the enormous potential of growth of the aviation sector in Africa, it still remains difficult for African states and aviation stakeholders to access funds at an affordable cost if at all and ensure financing for the modernisation and expansion of the infrastructure. The latest estimate from the African Development Bank suggests that Africa's infrastructure needs amount to \$ 130-170 billion a year, with a financing gap in the range of \$68- \$108 billion.

- *There is a need to develop public-private partnerships in airlines, airport infrastructures and other related services. SAATM should become a priority with national authorities, financial institutions and the international donor community. It has to be noted that for any intervention, AfDB requires the State to be signatory of SAATM as a prerequisite. The Infrastructure and Aviation System Gap analysis conducted by ICAO has identified key priority areas related to aerodromes, air navigation services, aircraft fleet and equipment and human resources. These priorities should be taken into account in the financing projects.*
- *The Convention on international interests in mobile equipment and its related protocol (The Cape Town Convention) also strengthen legal frameworks and contribute to lowering the cost of acquiring and leasing modern fuel-efficient aircraft. The way to facilitate access to finance should be explored. In particular the Commission's proposal for the future Multi-Annual Financial Framework of the EU foresees an ambitious Neighbourhood, Development and International Cooperation Instrument. Building on the External Investment Plan and its European Fund for Sustainable Development, this instrument also foresees a substantial increase in the use of blending and guarantees, to leverage sizable amount of funds from the public and the private sector.*
- *In order to seize the opportunities anticipated with the SAATM and to ease African carriers' access to aircraft acquisition finance, the AfDB has also engaged in catalysing efforts for the creation of a robust leasing company or platform for African airlines, aiming to foster leasing opportunities in particular for small African carriers. Accordingly, the Bank will examine different business models and*

support the intervention that addresses the challenges faced by African carriers efficiently. The study is expected to be completed during S1 2020.

4.2.4. Need to put emphasis on safety and security

There is large variation of levels of aviation safety and security performance across the continent. The EU has been already providing support in these two areas for several years and will sustain its efforts in the years ahead.

The global aviation system is constantly evolving. From a purely State-based environment, it now incorporates cooperative frameworks between States, with the involvement of multiple stakeholders. In some cases, these regional initiatives have led to the establishment of regional aviation systems with common legal rules. Implementation of those rules by participating States in a consistent manner is assured under a regional quality control mechanism exercised by a Regional Safety Oversight Organisation (RSOO).

Such regionalisation initiatives generate a number of benefits for participating States, for the regulated industry and ultimately for the travelling public. It provides for an overall improved performance of the aviation system. Such initiatives are fully in line with the (ICAO) 'Global Strategy and Action Plan for the Improvement of Regional Safety Oversight Organizations (RSOOs) and the Establishment of a Global System for the Provision of Safety Oversight' adopted in Ezulwini, Swaziland in March 2017.

Relating to security, the EU launched in 2015 an ambitious initiative of cooperation and capacity building aimed at supporting African partners States in their efforts to effectively implement baseline aviation security measures as defined in ICAO Annex 17. The CASE project implemented by ECAC is coordinated with regional organisations such as AFCAC, ACAO and WAEMU and with other capacity building initiatives, either multilateral such as ICAO AFI SEC/FAL or bilateral, directed towards Africa.

- ***The support for safety will be provided under the EU funded project EU-ASA implemented by EASA. It is recommended to expand EU-AFCAC technical assistance through (i) the deployment of the Cooperative Inspectorate Scheme (AFI-CIS), and (ii) work on regulatory convergence and common standards, namely in the context of establishing Regional Safety Oversight Organizations (RSOOs).***
- ***European standards in aviation could be made available to African States as already ensuring interoperability in Europe and representing a significant input to ICAO Standards and world-wide harmonisation.***
- ***The continuity of the CASE I project will be ensured with the CASE II project as from 2020.***
- ***Both safety and security constitute pillars of SAATM. They need political commitment and further support in order to improve their overall current levels of performance.***

4.2.5. Need for secured and harmonized single sky operation

Common and interoperable air traffic management systems are important to avoid duplication and fragmentation of the air space. While the maintenance of the system is costly, it can be shared between all the members, bringing economies of scale, hence efficiency gains. Harmonisation of procedures and technical capabilities, use of innovative and enabling technologies, seamlessness of services and optimisation of airspace can improve significantly and sustainably air navigation

safety and efficiency throughout the African airspace. This would thereby lead to shorter travel times and new routes and frequencies, reduce fuel consumption, emissions and delays therefore contributing to the expected direct benefits of the SAATM.

ASECNA (Agency for Air Navigation Safety in Africa and Madagascar) is in charge of the design, implementation and management of the systems and services for air traffic control, aircraft guidance, flight information, forecasting and transmission of meteorological information,

ASECNA is implementing a continuum of services and air space over its 17 member states and has signed in 2001 a cooperation agreement with EUROCONTROL in relation to GNSS, ADS, AIS, En Route Charges and Training.

ASECNA has also concluded in 2016 an international agreement with EU for the development of an autonomous satellite based augmentation system (SBAS for Africa and Indian Ocean) using the EGNOS technology (entered into force in 2018). SBAS provides a regional coverage and availability of safer and efficient air navigation services on all regional airports and is a key enabler to the realization of the African Single Sky and the African Single Air Transport Market (SAATM). The 'SBAS for Africa and Indian Ocean' is one of the Africa based initiatives supported by EGNOS in Africa support programme, managed by the JPO (Joint Programme Office) which ensures coordination of the implementation of satellite navigation in Africa

- *It is important to support interoperable regional CNS/ATM systems by capitalising on the return of experience both in Africa and Europe.*
- *The cooperation model of EUROCONTROL could equally be promoted in terms of mutualised services, functions and tools, available in a cost effective manner to the whole European community and beyond (Network Manager functions, EAD, ARTAS, Route Charging Scheme...) through a cost sharing mechanism, leading to enhanced interoperability. Equally, the European model in terms of ATM Master Planning and Implementation Monitoring could be used as inspiration for next steps in Africa.*
- *EUROCONTROL is also available to support the extension and deployment activities in the context of a framework cooperation with DG GROW and the European GNSS Agency, as well as to share experience and help for gap analysis in air navigation services.*
- *The success stories of the Africa –Europe Partnership on satellite navigation should be replicated, namely by replicating what has been done with ASECNA.*
- *The ongoing institutionalisation process of the JPO should be accelerated to ensure long-term sustainability of its strategic coordination of the adoption of EGNOS in Africa.*

4.2.6. Need for strong Executing Agency for SAATM

The Yamoussoukro Decision is the basis for the creation of a single African air transport market. However this decision is applied unevenly by the different African Countries. Lack of proper implementation and respect of the provisions of the Decision will significantly hamper the establishment of SAATM.

Therefore the creation of a single African aviation market requires a coordination body that is entrusted by the participating states with the responsibility to follow up the implementation of SAATM. AFCAC, the Specialized Agency of the African Union in all civil aviation matters in the

Continent was designated as the Executing Agency of the Yamoussoukro Decision (YD). However AFCAC lacks the human and financial resources required to effectively carry out its mandate.

- *AFCAC needs to be properly reinforced to ensure the implementation of SAATM. To make this support/reinforcement efficient it is necessary to ensure a proper coordination of the different projects aiming at such support (AfDB, EU) to avoid any duplication and inadequate use of resources.*
- *It is also crucial to work on regulatory convergence through intensive awareness programs on the Continental Regulatory Instruments and expedite the development of Operational Rules and Manuals for their use by the Executing Agency, RECs and States. Assistance projects could include such activities in their scope.*
- *The EU is launching a study on the mapping of regulatory landscape in support of SAATM. The result of this study expected for end 2019 should hopefully help to design future actions.*

4.2.7. Capacity Building

As underlined in “Aerospace in Africa” published by Airbus⁸ : for a country or region to become competitive in a labour and capital-intensive industry like aerospace, there must be accelerated investments in people to create the right skills. The task for government is to support and stimulate the human capital development. Moreover, emphasis should lay on the necessary capacity building in the civil aviation authorities and Regional Economic Communities, which will need to push for and oversee the functioning of SAATM.

- *As there is plenty of talents available in Africa, an important focus should be on the further development and retention of those talents, in all parts of the aviation value chain. Stimulate and support, including through training and mentoring, a genuine know how transfer to the benefit of the civil aviation authorities in order for them to comply with required international standards. The central challenge will be to attract and retain talent in Africa. For this a possibility would be to explore the establishment of a cross-country licensing model for pilots. Africa may also benefit from a number of EUROCONTROL tools, developed with and for its Member States (forty one countries), and now also available outside Europe, such as the FEAST (ATCO selection tool) and ELPAC (English Language Proficiency for ATCOs and pilots) tools.*
- *Investments in aviation infrastructure should be flanked with technical assistance where possible, in support of project supervision, implementation and maintenance, and to build local capacity to manage such operations.*
- *The example of the Morocco-based Aviation Professions Institute (IMA) which aims to train 800 aviation and aerospace professionals per year could be looked at to see if it can be replicated elsewhere.*
- *The pooling of resources should also be developed.*

⁸ The great enabler, Aerospace in Africa by Airbus [https://www.airbus.com/content/dam/corporate-topics/publications/brochures/TheGreatEnable_AerospaceinAfrica.pdf]

4.2.8. Taxes, fees and charges

Fees and charges as well as high taxes and fuel costs are seen as important obstacles for the development of aviation. Airlines and the aviation sector at large should not be seen as a source of national revenue as high costs are main challenge hindering the development of the aviation sector. Ticket fares are often unaffordable for most of the population and the lack of competition is not improving the already low level of connectivity. High fares lead to low demand, itself leading to higher unit costs and lower load factors. Even if 5th freedom is existing, it is not always possible to use it because high costs make routes not viable.

- *Looking on ways to harmonize and reduce taxes, fees and charges to make SAATM viable and avoid double charges is key.*
- *The existing awareness programs on ICAO policies on taxation of international air transport services should be further disseminated. It is recommended to look at the results of the study carried out by AfDB on the market access issue and the World Bank on the application of aeronautical charges.*

4.2.9. Reluctance to lose control on national carrier

The European experience has shown that national, state owned carriers are seldom advocates of liberalisation and of the increased connectivity it brings. There is often a tendency to protect national air carrier by maintaining market access limitations, to the detriment of passengers.

- *Organise Awareness programs on the Regulatory Instruments of the YD, including Competition Rules, Disputes Settlement, etc. and develop ways to learn from earlier success stories, such as for example the Morocco case.*

4.2.10. Visa restrictions

Providing good intra-African connectivity requires more than just improving air links as for travel to be really seamless, additional conditions need to be met. Some of those are directly linked to aviation but some lay outside aviation itself. Visa regimes are a good illustration of such factors. Indeed, an excessively complex visa system between members of SAATM would undermine many of the advantages which SAATM can offer.

- *Agreements should be sought between members of SAATM to ease the reciprocal visa regimes between SAATM participants. The ultimate goal of a visa-free continent based on a single African passport as envisaged by the African Union should significantly boost regional traffic.*

Conclusions of the Aviation Cluster

There is a clear momentum to make the single African air transport market (SAATM) a reality. While a lot of initiatives already exist, it is important to take stock of these initiatives, build on them, avoid duplications and join efforts to the greatest extent possible. It is also important to build around existing organizations and actors which are involved in SAATM like AFCAC, AU, EU, ECAC, ICAO, EASA, ASECNA, JPO, RECs as well as State authorities, Financial Institutions and Industry partners.

The SAATM Prioritised Joint Action Plan should represent the roadmap for intervention of all actors involved. It is therefore important that the various technical cooperation and assistance initiatives

are aligned to support this action plan. Moreover all actors involved should look into ways to further strengthening their respective efforts and collaboration to support the Action Plan.

Investments in both infrastructure and education will be crucial for aviation development and for the creation of high quality skilled jobs.

The development and growth of the aviation sector in Africa will also need to take into account its environmental footprint and to use innovative technologies to make it sustainable.

Finally, the Members of the Aviation cluster recommend the European Union to deepen its commitment to be a key partner of Africa in its objective to create the SAATM. The European Union will make sure that this is appropriately reflected in its cooperation with Africa.

5. Scaling-up investments, private sector involvement & innovative financing

5.1. General context and problem analysis

While infrastructure is crucial for sustainable development and inclusive growth, a massive gap in financing has constrained its development. Estimates show that in Africa, overall annual transport infrastructure needs in 2015-2030 reach about 3% of GDP for capital investments and another 1% of GDP for maintenance. African developing countries face specific challenges when it comes to closing the infrastructure financing gaps, in terms of magnitude of investment needs, capacity to develop bankable projects and mobilizing, and accessing financial resources for investment. The total cost of the Programme for Infrastructure Development in Africa (PIDA), which covers not only transport but also energy and ICT, is assessed at US\$360 billion by 2040. Within the overall Program, the Priority Action Plan 2020 contains the first set of immediate priorities – 51 projects and programs – for which the overall capital cost amounts to approximately US\$7.5 billion annually. While the infrastructure gap has been extensively discussed at the G20 Finance track, the Developing Working Group (DWG) also discussed the issue, emphasizing the sustainable development perspective.

At present, Africa's private infrastructure investment remains small compared to other regions, and the transport PPPs market is volatile and concentrated. According to the Public-Private Infrastructure Advisory Facility (PPIAF), the global transport sector received US\$36.5 billion in private investment in 2017. However, SSA received only US\$2.1 billion across 19 projects, which was the region's second-lowest level of investment in the past 10 years. Private financing in SSA in 2010-2017 was mostly channelled into the ports sector, with over 60% of the investment volume

In order to effectively address the infrastructure financing gap, it is critical to promote scaling up and integrating financing from all sources, including from public, private, and multilateral agencies (e.g. Multilateral Development Banks (MDBs)), as well as domestic resource mobilisation. In this vein, it is important to involve the private sector in quality infrastructure investment. This can be done by improving project preparation and investment climates, mitigating risks, and utilizing, where appropriate, public funds as a catalyst for increased private sector investment, including through impact investment, blended finance, public private partnerships, private-sector instruments and guarantee instruments. Additionally, more efficient allocation and use of existing resources to fund infrastructure investment is critical.

Despite their potential, Public Private Partnerships (PPPs) are highly complex policy instruments and must be fully understood, as well as professionally implemented and managed, if they are to deliver. Private investors typically require certain preconditions before committing themselves to projects with lengthy payback periods. For example, they want to be involved in projects that are of high priority and based on reliable time schedules, thus more likely to come to a conclusion.

Lack of expertise on the part of contracting authorities, lack of knowledge regarding best practices, strong external pressures to conclude transactions, and weak intergovernmental cooperation can all threaten the success of PPP projects, regardless of the presence of corresponding laws. There is no panacea for these challenges. Many African governments demonstrate a willingness to train their staff effectively, to develop tools to facilitate transactions and to draft model contracts. However, these measures do not suffice.

Focusing on African transport modes, the road sub-sector which dominates the transport sector in most African countries, covering 80-90 percent of passenger and freight traffic has the highest financing gap. Major projects on improving the road network include the completion of the missing links of the Trans-African Highway (TAH), which entails various projects of road construction, rehabilitation and extension in accordance with the provisions of the intergovernmental agreement for the harmonization of norms and standards of the trans-African highway network. Several countries have set up road funds and road development agencies to maintain regional and national road networks. The main source of funding for road maintenance is the fuel levy, while construction and rehabilitation are funded through government budgets, loans from development banks, and grants from development partners. However, most road funds suffer from several

inefficiencies and can hardly deliver on their mandate. There is a need to take care of the current and increasing road infrastructure assets through proper maintenance and management; this should be achieved through reform of the road sector management and funding.

In the railway sub-sector, many of the new railway development projects under way in Africa are based on the framework of the Union of African Railways, which encourages standard gauge railways. Indeed, the geographical nature of the continent with large number of landlocked countries and small sized economies necessitates development of high-capacity and efficient rail network. In addition, Ethiopia, Djibouti and the five EAC countries have decided to develop standard gauge rail networks to replace existing narrow gauge systems. Notwithstanding policy recommendations in SGR for new investments, countries and RECs with legacy narrow gauge such as South Africa SADC and elsewhere in Africa, are encouraged to optimise utilization of legacy rail infrastructure through optimal use of technology and inter-operability. To this end, digitalization of African railways will be prioritized by the African Union/ AUDA-NEPAD as part of Agenda 2063 – Integrated High-Speed Railway Network Project (AIHSRNP) – strategy - to enhance inter-operability, safety and security of railway operations in Africa; as well as enhance competitiveness between railways and other transport modes.

In the maritime sub-sector, there continues to be a need to finance port development, both through green field and brown field projects. Private participation in West Africa Port container terminal concessions have brought major positive changes. Private port operators invested in modern handling equipment and revamped facilities. The concession of the ports of Freetown, Monrovia, Cotonou, Lagos and Abidjan resulted in hundreds of million US\$ of additional private investments. Productivity has increased from 6 to 24 moves/h in Lagos, and from 19 to 35 in Conakry.

Bus Rapid Transit (BRT) offers an efficient, high-capacity public transport solution that is more affordable than rail-based modes. Upfront capital investment needs are nevertheless substantial, reaching US\$300-400 million per BRT corridor. Concessional financing to African governments is limited, and other sources need to increasingly be leveraged. The International Finance Corporation (IFC) estimates that the financing gap for BRT systems in Africa's largest cities would amount to US\$100-150 million per BRT system.

Problem analysis

The difficulties of the national budgets to cover the financial gap between transport needs and resources is coupled by the high level of risk perceived in some countries by private investors and the financial and economic prospects that are difficult to seize. In addition, ODA's ability to mobilise private funds for infrastructure projects is very weak.

Underdeveloped financial markets, low capacity to borrow, regulatory barriers and weaknesses in the enabling policy environment reduce the access to finance. Even where financing availability increased, the project quality, procurement, implementation procedures and maintenance remain a challenge, requiring continued enhancement of capacity and technical assistance. Preparation time of projects is excessively long and uncertain, resulting in lack of well-structured pipeline of bankable investment opportunities.

The long-term role of infrastructure connectivity through alternative infrastructure project designs has been hampered by high service and transaction costs (such as taxes, fees, levies etc.). There have been multiple attempts to launch PPPs, but they have met challenges due to issues of affordability of services by the final user, poor structuring and social acceptance. This is strongly negatively affecting the appetite for private investment mainly on road/rail projects.

Project investment coordination should happen at the level of recipient countries, but currently it is insufficient especially amongst IFIs. There are issues regarding the division of labour and timing, e.g. sharing of project development phases, feasibility studies, etc. is often ad-hoc and shared late. This also puts certain bilateral and multilateral financiers at a certain disadvantage vis-à-vis other financiers which may not adopt the same quality, environmental and social standards.

Not all African transport projects, particularly regional ones, are fit for Public Private Partnerships models, as illustrated by the fact that PIDA projects have so far not been implemented through PPPs. The viability of PPP transport projects depends on the volume (economic return) and the affordability of the toll. There are projects, other than ports and airports, which can be promising for investment and growth opportunities.

The lack of expertise on the part of contracting authorities, the lack of knowledge regarding best practices, strong external pressures to conclude transactions for concrete projects and programmes, and weak intergovernmental cooperation can all threaten the success of PPP projects, regardless of the presence of corresponding laws. There is no panacea for these challenges. Many African governments demonstrate a willingness to train their staff effectively, to develop tools to facilitate transactions, and to draft model contracts. However, these measures do not suffice.

5.2. Recommendations

5.2.1 Priority Action Plan

- Articulate the vision of corridor components, list of key projects that allow for multi-annual engagement (i.e. not a piecemeal approach, but a programmatic/pipeline approach), priority projects, quick win projects, long-term projects and aspects such as project governance and project operational implementation conditions. Continental, regional and national Authorities, donors, IFIs, private investors and transport operators should work in coordination around this process. More than a one-time document, such roadmap of investment/pipeline of projects would be a dynamic process, regularly updated and defined in close stakeholder partnership.
- Support African countries and the Regional Economic Communities with capacity building and technical assistance tailored to improve project management capacity and ability to bring project proposals to bankable stage.
- Support the inclusive preparation of long-term bankable multimodal connectivity projects that improve the efficiency of the overall logistics chains, such as rail projects on a short distance to reach a dry port for dispatching and optimizing transport to landlocked countries or mainstreaming the financing of the last mile connectivity as integral part of port development.

→ Under the framework of the PIDA 2021-2030, define a clear Priority Action Plan and project pipeline for each African transport corridor in order to give a clear overview of transport supply and demand as well as their evolutions on a given corridor.

5.2.2. National coordination

- Improve domestic resource mobilisation through increased tax compliance and more efficient tax administration systems that could help governments finance infrastructure projects more freely.
- Improve procurement rules to reward and promote competitiveness such as better contract awarding procedures and their criteria to reward quality, competitiveness and efficiency, rather than merely rewarding low costs.
- Improve public investment projects and enhance transparency, monitoring and evaluation mechanisms.

→ At national level, promote greater and better coordination between levels of government, and improve local governance to strengthen efficiency in public procurement/investment and use of infrastructure assets

5.2.3. Improve investments and financial instruments

- Establish infrastructure investment platforms with sufficient concessional funding (including dedicated envelopes for Technical Assistance) to extend the practice of co-financing and blending of grants with loans, whereby donors, MDBs, DFIs and private lenders join forces and coordinate where possible to support infrastructure investments and provide clear guidance to national administration on how to obtain infrastructure funding.
- Future strategies for attracting private investment also need to consider the private investors' uneven appetite for transport projects, e.g., high for urban tolls, BRT services, dry ports, container terminals, and airport passenger terminals, but lower for inter-city tolls, general freight rail. Approaches that can be applied by international donors to help increase private investment include, among others:
 - Working with the enablers, including investment climate; regulatory framework; strengthening public capacity for project preparation; understanding the limitations (fiscal space); and understanding the political economy.
 - Optimizing existing assets: identifying innovative PPP approaches to existing assets/infrastructure; and state-owned enterprise (SOE) reforms and mobilization of commercial

- financing (including domestic finance) in lieu of traditional loans (explore innovative finance structures, largely through guarantees or contingent financing provided by IFIs).
- Creating markets: prioritizing PPP projects (economic and bankable); helping connect the dots (port/inland); and applying lessons learnt (rail concessions, toll roads, ports, airports).
- Use de-risking instruments such as guarantees to promote financing of projects which are not the usual transport infrastructure such as:
 - fleet renewal;
 - railway rolling stock;
 - leasing of construction equipment;
 - support to urban operators, etc.
 - Use concessional loans for non-financially viable infrastructure projects with attractive interest rates, grace periods and long maturities; the aim is to provide Africa with financing opportunities cheaper than their treasury bonds interest rates;
 - Focus public financing and donor grants to support strategic transport corridors with initially limited bankability, including in fragile and conflict-affected countries, as well as to ensure affordability in mass transit solutions and connect rural populations in sparsely populated areas. In the rural connectivity sub-sector, due to the limited opportunities to attract private financing, the fiscal burden of improving local access may be very high if each country develops its network to fit the population's needs. Sub-region-wide investment projects aimed at improving rural access could therefore be considered to address the local connectivity challenges in a more strategic and comprehensive manner. Focusing a large initiative on corridor development can mobilize funding and generate revenue, with a potential for spill over effect if corridor projects are twinned with local development of connecting infrastructure along corridors.
 - *Improve the investment and financial instruments in terms of access to information, maturity, affordability. These instruments should be visible, differentiated and competitive. Use the blending modality as a default option in order to attract public loans and private sector financing*

5.2.4. Private sector participation

- Improve the legislative and regulatory framework in order to attract private sector financing for PPPs, and ensure the financial soundness of PPP structures;
- Improve the procurement processes by embedding Capex and Opex benefits in the different development phases to enhance whole life cost and technical value of the proposals – considering impact on the social and environmental interfaces of the programs and projects;
- Clarify the concept of PPP and delineate clearly the roles and responsibilities of all participating stakeholders and agree on a balanced risk-sharing matrix;
- Define the social acceptability of service costs;
- Select bankable projects that have promising chances when provided with an acceptable level of de-risking tools.
 - *Encourage private sector participation, including the use of PPPs as and when appropriate, where the country political economic situation and business environment are conducive*

6. Annexes

The meetings of the Connectivity, Road Safety and Aviation Clusters under the Africa-EU Task Force for Transport and Connectivity brought together regional and professional organisations, as well as representatives of national administrations and the civil society.

The **Africa-EU Task Force for Transport and Connectivity** was co-chaired by **Ms Abou-Zeid** African Union Commissioner for Infrastructure and Energy, **Ms Violeta Bulc**, former European Commissioner for Transport and **Mr Neven Mimica**, former European Commissioner for International Development and Cooperation.

The following members participated in the three clusters of the Task Force.

Task Force Members

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- Ms. Sue Barrett** Director, Head of Infrastructure for Turkey, Middle East and Africa, EBRD
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- Mr. Sassi Hammami**, Secretary General Ministry of Transport, Tunisia
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- Mr. Yaya Yedan**, Senior Transport manager, SSATP World Bank
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- Mr. Kluas Gihl**, KFW
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- Mr Mamadou Sidiki Konate**, Chair of the West African Road Safety Organisation, Mali;
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Mr Yves Koning, EASA

IV. Abbreviations

| | |
|---------|------------------------------------------------------------------------------|
| ACAO | Arab Civil Aviation Organisation |
| ACEA | European Automobile Manufacturers' Association |
| ADS | ATM Data Services |
| AFCAC | African Civil Aviation Commission |
| AfDB | African Development Bank |
| AIS | Aeronautical Information Services |
| ARSO | African Road Safety Observatory |
| ASECNA | Agence pour la Sécurité de la Navigation aérienne en Afrique et à Madagascar |
| AU | African Union |
| AUC | African Union Commission |
| CIS | Cooperative Inspector Scheme |
| CITA | International Motor Vehicle Inspection Committee |
| CNS | Communication Navigation Surveillance |
| EAD | European Aeronautical Database |
| EASA | European Aviation Safety Agency |
| EC | European Commission |
| ECAC | European Civil Aviation Conference |
| EGEA | European Garage Equipment Association |
| EGNOS | European Geostationary Navigation Overlay Service |
| EIB | European Investment Bank |
| EU | European Union |
| EU | European Union |
| EUCARIS | EUropean CAR and driving licence Information System |
| FIA | Fédération Internationale de l'Automobile |
| GNCAP | Global New Car Assessment Programme |
| GNSS | Global Navigation Satellite systems |
| GRSF | Global Road Safety Facility |
| GRSP | Global Road Safety Partnership |
| IATA | International Air Transport Association |
| ICAO | International Civil Aviation Organisation |

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| IFI | International Financial Institutions |
| iRAP | International Road Assessment Program |
| IRTAD | International Traffic Safety Data and Analysis Group |
| ITF | International Transport Forum |
| JPO | Joint Programme Office |
| PIDA | Programme for Infrastructure Development in Africa |
| REC | Regional Economic Community |
| RSOO | Regional Safety Oversight Organizations |
| SAATM | Single African Air Transport Market |
| SBAS | Satellite-Based Augmentation Systems |
| SSATP | African Transport Policy Programme |
| UNECA | United Nations Economic Commission for Africa |
| UNECE | United Nations Economic Commission for Europe |
| WAEMU | West African Economic and Monetary Union |
| WB | World Bank |
| WHO | World Health Organisation |
| YD | Yamoussoukro Decision |