Partnership on Sustainable Low Carbon Transport

PPMC

Marrakech Partnership for Global Climate Action (MPGCA) Transport Initiatives: Stock-take on action toward implementation of the Paris Agreement and the 2030 Agenda on Sustainable Development

Second Progress Report

November 2017

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List of Abbreviations

2DS	Two-Degree Scenario
ACERT	Airport Carbon and Emissions Reporting Tool
A-S-I	Avoid-Shift-Improve
ATAG	Air Transport Action Group
CCAC	Climate and Clean Air Coalition
CO_2	Carbon Dioxide
COP	Conference of the Parties
CORSIA	Carbon Offsetting and Reduction Scheme for International Aviation
ECF	European Cyclist' Federation
ESRS	Environment Strategy Reporting System
EU	European Union
EV	Electric Vehicles
GFEI	Global Fuel Economy Initiative
GGFAP	Global Green Freight Action Plan
GHG	Greenhouse Gas
GLEC	Global Logistics Emissions Council
HDDI	Heavy Duty Diesel Initiative
ICAO	International Civil Aviation Association
ICCT	International Council on Clean Transportation
ITS	Intelligent Transport System
LC2RTI	Low Carbon Road and Road Transport Initiative
MPGCA	Global Climate Action Agenda
MPGCA	Marrakech Partnership for Global Climate Action
NDC	Nationally Determined Contribution
NUA	New Urban Agenda
REDII	European Renewable Energy Directive
SDG	Sustainable Development Goals
SE4ALL	Sustainable Energy for All
SLoCaT	Partnership on Sustainable, Low Carbon Transport
TUMI	Transformative Urban Mobility Initiative
UEMI	Urban Electric Mobility Initiative
UIC	International Union of Railways
UITP	International Association of Public Transport
UN	United Nations
UNFCCC	United Nations Framework Convention on Climate Change
WCA	World Cycling Alliance
ZEV	Zero-Emission Vehicles

I. Introduction

A. Background on this report

This report gives an overview of 21 voluntary multi-stakeholder initiatives on sustainable, low carbon transport, the manner in which they measure progress and their alignment with the Paris Agreement and the 2030 Agenda on Sustainable Development. This is the Second Progress Report updated based on the first progress report released at the Marrakech Climate Conference of the Parties (COP22) in November 2016. The Second Progress Report covers the progress of the initiatives up until 31st October 2017.

B. Objectives of the Marrakech Partnership for Global Climate Action

Inspired by the call to action by Secretary General Ban Ki-moon in September 2014 and followed up by the Lima Paris Action Agenda (LPAA), 15 transport initiatives were developed by non-state actors in the transport sector that were showcased during COP21 at the Transport Focus event on December 3rd, 2015[1].

COP21 also decided to appoint High Level Champions (HLC) to "*facilitate through strengthened high-level engagement in the period 2016–2020 the successful execution of existing efforts and the scaling-up and introduction of new or strengthened voluntary efforts, initiatives and coalitions*". Following the appointment of the first two High Level Champions and the COP 22 in Marrakech, the action agenda was renamed as Marrakech Partnership for Global Climate Action (MPGCA) in November 2016.

These commitments were developed to trigger more ambitious action in all major parts of the transport sector. The selection of the initiatives followed a scientific and systematic approach and combines a top- down with a bottom-up approach. The systematic top-down approach was based on IPCC and UNEP reports which defined the key sub sectors where action needs to be taken to remain on a 2° pathway.

The bottom-up process, through which organizations were invited to propose initiatives helped us to understand the initiatives that stakeholders are proposing. The underlying idea of the MPGCA was to make sure all key sectors were covered with impactful initiatives, which could be joined by states as well as non-states actors, so that the global ambition of countries to act on climate change can be scaled up. The MPGCA is planned to be a living process: some initiatives might be added as they mature or as gaps are identified; some might exit.

In 2017, six new transport initiatives were formed. There are now 21 MPGCA Transport Initiatives which include both passenger and freight transport and touch on all transport sectors and modes:

[1] http://newsroom.unfccc.int/lpaa/transport/press-release-lpaa-transport-transport-industry-drive-for-improved-energy-efficiency-and-electro-mobility-to-stem-high-growth-of-emissions/

General urban transport:
C40 Cities Clean Bus Declaration
EcoMobility Alliance
MobiliseYourCity
Taxis4SmartCities
Transformative Urban Mobility Initiative (TUMI)
UIC Low-Carbon Sustainable Rail Transport Challenge
UITP Declaration on Climate Leadership

Freight and Logistics:
Global Green Freight Action Plan (GGFAP)
Navigating A Changing Climate

Fuel Efficiency and Electric Mobility:
below50
EV100
Global Fuel Economy Initiative (GFEI)
Global Strategy for Cleaner Fuels and Vehicles
Urban Electric Mobility Vehicles Initiative (UEMI)
ZEV Alliance

Cycling and Walking:
Cycling Delivers on the Global Goals
Global Sidewalk Challenge

Aviation:
Airport Carbon Accreditation
Aviation's Climate Action Takes Off

Transport Technology:
ITSfor the Climate

Road Transport:
Low Carbon Road and Road Transport Initiative (LC2RTI)

The 21 transport initiatives cover all modes of transport for passengers and freight and contribute to all three components of the Avoid-Shift-Improve approach necessary to address the environmental impacts of transport. *Avoid* - unnecessary trips, *Shift* - to more sustainable and shared modes and *Improve* the environmental performance of transport modes - technological improvements to reduce GHG emissions and air pollution. Some initiatives also address climate change adaptation requirements.

The MPGCA Transport Initiatives represent a broad range of multi-stakeholder coalitions expanding to cover for all modes of transport through decentralised action to reduce transport greenhouse gas emissions and strengthen the resilience of transport infrastructure. By demonstrating action on the ground and the considerable co-benefits of climate action on transport (e.g. better urban air quality, less road deaths and increased access) the transport initiatives aim to help increase ambition of NDC´s and

the efficiency of their implementation. The work of the transport initiatives also actively contributes to the UN 2030 Agenda for Sustainable Development and the implementation of UN HABITAT´s New Urban Agenda.

Collectively these initiatives, if widely supported by state-and non-state actors, and implemented at scale, can reduce the carbon footprint of an estimated half of all the passenger and freight trips made by 2025. Actions such as these can contribute to substantive savings associated with a shift to low carbon transport. The International Energy Agency (IEA) have estimated[2] that these could be as high as US$70 trillion by 2050 as less money would need to be invested in vehicles, fuel and transport infrastructure reflecting the strong economic case for climate action in the transport sector.

The transport initiatives are harnessing the energy and interest created by the Paris Agreement to mobilizing global climate action and are voluntary commitments from a wide range of non-state actors.

There is an increasing, but not universal, recognition from national governments of the essential roles of non-state actors in achieving and even guiding the mitigation efforts needed to deliver on the Paris Agreement. Section V of the COP21 Decision "*Welcomes* the efforts of all non-Party stakeholders to address and respond to climate change, including those of civil society, the private sector, financial institutions, cities and other subnational authorities." Numerous references to the role of non-party stakeholders can also be found in other parts of the COP21 Decision.

The transport initiatives are at various stages in terms of defining targets and indicators to monitor their commitments. During 2017, these Initiatives have continued to expand their activities and on the ground impact. They benefit from the growing interest to act on transport, which is growing in part because of the NDCs (75% of which prioritize transport action). Progress is being made at a policy level with more low carbon transport related policies being put in place as well as through concrete actions on the ground

An important objective of this report is to develop a better overview of how the MPGCA Transport Initiatives define and monitor progress.

There is a developing understanding of the role MPGCA can play in supporting and raising the level of ambition of the Nationally Determined Contributions (NDCs) in 2018, which are a key implementation mechanism of the Paris Agreement on Climate Change, as well as the transport related targets under Sustainable Development Goals (SDGs) adopted in 2015. The report assesses the alignment of the MPGCA Transport Initiatives with both global processes with the greatest emphasis on alignment with the NDCs.

C. Methodology

For the preparation of this report, PPMC closely coordinated with the leading organizations from the transport initiatives. Information collection involved the following steps:

[2] http://www.iea.org/publications/freepublications/publication/policy-pathways---energy-efficiency-in-urban-transport-systems.html

- An teleconference was set up with the transport initiatives in middle of July 2017 where the idea of a consultation meeting in Paris and the second progress report were introduced;
- A request was sent to collect information in a structured framework on the progress since COP21 from all initiatives between mid-July and end of September;
- A physical meeting in Paris with remote participation of various initiatives was held on September 28, 2017 in Paris;
- Bilateral follow-up by the Partnership on Sustainable, Low Carbon Transport (SLoCaT) with some of the transport initiatives;
- Circulation of the draft report to the transport initiatives for consultation between October 18 and October 25, 2017.

The report will serve as the basis for showcasing the MPGCA Transport Initiatives in a MPGCA Thematic event on Transport on the November 11, 2017 in Bonn, Germany.

Transport Thematic Day is jointly organized by the International Association of Public Transport (UITP), International Transport Forum (ITF), International Union of Railways (UIC) and the Paris Process on Mobility and Climate (PPMC). The discussions of the Thematic Transport Day will build upon the transport related discussions in COP 21 and COP 22. This day will be used to report progress on the implementation of more than 15 Transport Initiatives that are part of the MPGCA and will be used to launch the six new initiatives.

II. Mapping of MPGCA Transport Initiatives

This chapter gives an analysis of the 21 MPGCA Transport Initiatives based on the following mapping activities:

a. **Types of signatories and partners:** Assessment of whether new signatories or partners[3] have been added since COP22 with a closer look at the extent to which the initiatives have specifically added government signatories or partners;
b. **Alignment with the Avoid – Shift – Improve framework:** Overview of the approaches initiatives have undertaken to reduce CO_2 emissions;
c. **Types of activities:** Assessment of whether initiatives are focusing more on *enabling activities* (e.g. capacity building and knowledge development) or *impact-oriented activities* (e.g. policy recommendations and on-the-ground implementation).

Detailed profiles of the 21 MPGCA Transport Initiatives are presented in **Annex I** of this report. The profiles give an overview of their objectives, commitment, and signatories and partners. They also include the progress made by the initiatives since COP22 and activities in the context of (1) outreach and coalition building; (2) capacity building; (3) knowledge development; (4) policy-making and

[3] Signatories to the initiatives are organizations that agree to implement the objectives and commitments of the initiatives. Partners are organizations not only supporting the implementation but also the administrative responsibilities (e.g. outreach, event organizing, knowledge and communication management) of the initiatives.

implementation; and (5) monitoring and reporting. The profiles also highlight how each initiative contributes to advancing the Paris Agreement goals.

A. Types of signatories and partners

The 21 MPGCA Transport Initiatives are supported by a wide network of signatories including national and civil governments, private sector companies and civil society organizations. The signatories of these initiatives agree to the objectives of the initiatives and are expected to play an important role in implementing the commitments of the initiatives.

In order to increase the impact of the sustainable, low carbon transport actions put forward by the initiatives, their signatories and partners to the transport initiatives continue to widen their networks and recruit additional signatories as well as supporters. Furthermore, it is also important to increase government support for the initiatives, as governments can enable implementation of the initiatives by adopting relevant policies and regulations.

Table 1 presents an overview of the type of institutions who are signatories and/or supporters of the MPGCA Transport Initiatives. The type of signatories can be divided into four groups: national governments, city governments, private sector companies and civil society organizations.

Table 1. Overview of MPGCA Transport Initiatives Signatories and Partners by type of institution

	Initiative	National Governments	States, Provinces and Cities	Private Sector companies	Civil society
1	Airport Carbon Accreditation				
2	Aviation's Climate Action Takes Off				
3	below 50				
4	C40 Cities Clean Bus Declaration				
5	Cycling Delivers on the Global Goals				
6	EcoMobility Alliance				
7	EV100				
8	GFEI				
9	Global Green Freight Action Plan				
10	Global Sidewalk Challenge				
11	Global Strategy for Cleaner Fuels and Vehicles				
12	ITS for the Climate				
13	LC2RTI				
14	MobiliseYourCity				
15	Navigating A Changing Climate				
19	Taxis4SmartCities				
20	TUMI				

	Initiative	National Governments	States, Provinces and Cities	Private Sector companies	Civil society
18	UEMI				
16	UIC Low-Carbon Sustainable Rail Transport Challenge				
17	UITP Declaration on Climate Leadership				
21	ZEV Alliance				

Major target signatories & partners Minor target signatories & partners

Observations on the signatories of the MPGCA Transport Initiatives:

- **Fixed vs. growing number of signatories:** In building up support for their commitments, the MPGCA Transport Initiatives have adopted two different strategies. Some initiatives such as UIC Low Carbon Sustainable Rail Transport Challenge was developed with signatories joining from the beginning and it is supported by 240 railway companies who are members of UIC. Similarly, the UITP Declaration on Climate Change Leadership brings together 350 commitments from 110 public transport undertakings. On the other hand, there are initiatives who are gradually building up their supporter base and expanding their signatories over time. For example, the Airport Carbon Accreditation Initiative has expanded its signatories from 170 in 2016 to 192 in 2017.
- **Type of signatories and partners:** While the number of signatories have a wide range, the type of signatories can be divided into four groups: national governments, city governments, private sector companies and civil society organizations.
    1. Examples of initiatives with **national governments** as their signatories are Aviation's Climate Action Takes Off and LC2RTI, which are supported by 191 and 121 member states, respectively. Similarly, GFEI is supported by 65 countries around the world, and the GGFAP received official endorsement from 24 countries.
    2. In addition to national governments, **cities and local governments** play a major role in some of the initiatives; for example, 26 cities have signed up to the C40 Clean Bus Declaration committing to doing their share to shift to low emission buses.
    3. The **private sector** also comprises a large share of signatories. For example, the UITP Declaration on Climate Leadership is supported by 1400 transport operators, who mostly act as private sector companies and who are members of the UITP. There are also initiatives such as the Airport Carbon Accreditation for whom signatories may be from private sector or government-run airports as well as airports that are run jointly by public-private initiatives. below50 has also received support from 19 companies from the private sector, the Global Sidewalk Challenge is supported by 12 private companies and Navigating a Changing Climate more than 20.
    4. In addition, GGFAP has 33 supporters from **civil society** and Cycling Delivers on the Global Goals aims to receive support from 100 civil society organizations.
- **Partners and signatories vs. Supporters:** There is considerable difference in terms of the level of commitment of signatories under the initiatives. This ranges from firm commitments to implement activities, monitored and verified by third parties (e.g. the Airport Carbon Accreditation Initiative) to initiatives where "signatories" or "partners" merely endorse an

initiative without taking on any specific responsibility for implementation (e.g. the Urban Electric Mobility Initiative, or the ITS for Climate initiative).

- **Increasing government support:** The impact of the transport initiatives can be significantly enhanced by receiving government support and having the required policy regulations in place. Therefore, government support is crucial for most initiatives to reach their overall impact targets. GGFAP has been reaching out to national governments in Africa, Asia, Europe and Latin America; and as a result has received support of 24 countries for their Action Plan. Another example of transport initiatives receiving support from governments in terms of enabling policies (as well as direct initiative support) is the ZEV Alliance. In recent months, governments have agreed to provide more support directly to the ZEV Alliance in addition to the electrical vehicles supporting policies adopted by increasing number of governments. A key objective in the next two years (in the run up to the next phase of Nationally Determined Contributions (NDCs) in 2018) is to ensure that states understand their role in supporting the scaling up of transport initiatives (see section VI for more information).

B. Alignment with the "Avoid-Shift-Improve" framework

There is widespread agreement among transport policy specialists and planners on the need to deploy three interlinked strategies – the "Avoid-Shift-Improve (A-S-I)" approach– to realize a transformative change in the transport sector and create inclusive access to jobs, goods and services. The A-S-I approach calls for: (a) **Avoiding** the need for unnecessary motorized trips through smarter land use and logistics planning; (b) **Shifting** the transport of goods and persons to the most efficient mode; and (c) **Improving** the efficiency and environmental performance of transport systems through improved vehicle, fuel, and network operations and management technologies.

In understanding how the MPGCA Transport Initiatives are achieving their goals, the A-S-I approach can be used as a tool to compare the different commitments and actions put forward by the initiatives. The below table presents an overview of the initiatives as assessed by the A-S-I approach:

Table 2. MPGCA Transport Initiatives Organized by Avoid-Shift-Improve Approach

	Initiative	Avoid	Shift	Improve
1	Airport Carbon Accreditation			
2	Aviation's Climate Action Takes Off			
3	below 50			
4	C40 Cities Clean Bus Declaration			
5	Cycling Delivers on the Global Goals			
6	EcoMobility Alliance			
7	EV100			
8	GFEI			
9	Global Green Freight Action Plan			
10	Global Sidewalk Challenge			
11	Global Strategy for Cleaner Fuels and Vehicles			
12	ITS for the Climate			
13	LC2RTI			

	Initiative	Avoid	Shift	Improve
14	MobiliseYourCity			
15	Navigating A Changing Climate			
19	Taxis4SmartCities			
20	TUMI			
18	UEMI			
16	UIC Low-Carbon Sustainable Rail Transport Challenge			
17	UITP Declaration on Climate Leadership			
21	ZEV Alliance			

Strong Focus Medium Focus Weak focus/Not relevant

- **Avoid:** Only few of the initiatives have a strong focus on activities avoiding the need for unnecessary motorized trips. For a more balanced approach, it would be necessary to increase attention on the Avoid approach. Nevertheless, there are six MPGCA Transport Initiatives who rose up to the challenge. The MobiliseYourCity Initiative, through its sustainable urban mobility plans, promotes the design of livable cities that reduce road fatalities, congestion and carbon emissions —for which avoiding unnecessary trips is a crucial component. The ITS for Climate initiative could also have a potential to avoid or reduce kilometers travelled through the use of smart ICT based technology.

- **Shift:** Promoting the shift to more sustainable modes of transport and transport infrastructure is central for a number of MPGCA Transport Initiatives. The objective of the UITP Declaration Climate Leadership to double the share of public transport by 2025 is an excellent example of a Shift-oriented policy. Similarly, the Cycling Delivers on the Global Goals is a good example of an Avoid-oriented initiative as it aims to increase the modal share of cycling and doubling cycling in Europe. Navigating Climate Change highlights the importance of sustainable transport infrastructure and focuses on shifting to a low-carbon inland and maritime navigation infrastructure.

- **Improve:** Most of the MPGCA Transport Initiatives have a strong Improve focus in their actions. In some cases they are improving the efficiency and environmental performance of cars through e-mobility (e.g. EV100, UEMI, ZEV Alliance). UEMI aims to increase the share of electric vehicles in individual mobility (2-3 wheelers and light duty vehicles) in urban areas to at least 30% by 2030. For the C40 Clean Bus Declaration, UIC Low Carbon Rail Transport Challenge, and Taxis4SmartCities, the initiatives are improving the efficiency and sustainability of a certain type of vehicle/mode of transport (e.g. buses, rail and taxis). As for the two aviation initiatives and GFEI, the focus is on improving the fuel efficiency and consequently reducing carbon emissions. Acknowledging the importance and tremendous growth of freight emissions, GGFAP focuses on the development of green freight programs that significantly increase not only the efficiency of heavy-duty trucks but the overall freight system efficiency.

C. Types of activities

The MPGCA Transport Initiatives have different strategies to realize their objectives. Strategies related to outreach, coalition/ capacity building and knowledge development are best represented, but where initiatives have included policy-making and implementation, it has a relatively low priority.

Table 3. MPGCA Transport Initiatives Organized by Types of objectives

	Initiative Name	Outreach, Coalition/ Capacity building	Knowledge Development	Policy-making/ Policy Instruments	On-the-ground Implementation
1	Airport Carbon Accreditation				
2	Aviation's Climate Action Takes Off				
3	below 50				
4	C40 Cities Clean Bus Declaration				
5	Cycling Delivers on the Global Goals				
6	EcoMobility Alliance				
7	EV100				
8	GFEI				
9	Global Green Freight Action Plan				
10	Global Sidewalk Challenge				
11	Global Strategy for Cleaner Fuels and Vehicles				
12	ITS for the Climate				
13	LC2RTI				
14	MobiliseYourCity				
15	Navigating A Changing Climate				
19	Taxis4SmartCities				
20	TUMI				
18	UEMI				
16	UIC Low-Carbon Sustainable Rail Transport Challenge				
17	UITP Declaration on Climate Leadership				
21	ZEV Alliance				

High priority objectives Medium priority objectives Low priority objectives

Chapter 3 provides detailed examples of the various strategies on outreach, capacity building, knowledge development, policy-making and implementation.

III. How do the MPGCA Transport Initiatives measure progress?

The 2015 Paris Agreement on Climate Change was a milestone in calling for a more ambitious target to move well below the two-degree scenario. In addition, for the first time, non-state actors have gained an important role to play in the implementation of the Paris Agreement through the MPGCA.

Since the emergence of transport initiatives at the Climate Summit in 2014 and their subsequent formal launch at COP21, considerable effort has been focused on setting up the organizational structure of the initiatives, obtaining additional endorsements and signatories and developing goals and targets with associated reporting framework. In 2016 and 2017, the initiatives are transitioning to a new phase in which monitoring, measurement, and reporting on outputs, outcomes and impacts of implementation will gain further importance.

Echoing the bottom-up approach of the Paris Agreement in which countries submitted their targets and ambitions based on their own circumstances and capacities, the French Ministry of Ecology, Sustainable Development and Energy has decided to adopt a non-prescriptive approach in encouraging the MPGCA Transport Initiatives to monitor and report on their progress. Instead of setting clear parameters and reporting methodologies, initiatives are invited to develop their own approaches to measuring, reporting, and monitoring their progress. This non-prescriptive approach is largely welcomed by the initiatives; yet, the lack of a common reporting framework also weakens the comparability of the already-diverse transport initiatives.

As the first step to provide a structured yet flexible reporting framework, the following section gives an overview of the internal outputs, external outcomes, and external impacts of the 21 MPGCA Transport Initiatives:

- **Internal outputs** refer to the concrete actions and specific deliverables produced within the initiative's partners and network. These internal outputs mostly focus on: outreach and coalition building, capacity building, knowledge development, and policy-making/ policy instruments;
- **External outcomes** refer to the specific results anticipated by the initiative's effort to realize their goals and targets. External outcomes are intended to influence relevant stakeholders beyond the initiatives' immediate network and partners, such as transport users and policy-makers, with impacts at the city, country, or sectoral level. These outcomes largely focus on policy intervention and implementation;
- **External impacts** refer to the significant effects and influence anticipated by the transport initiatives in the context of climate change and sustainable development. These impacts are quantified end results on the global level in terms of GHG emission reduction/ prevention, energy-related impacts, and financial/ economic benefits.

A. Assessment of internal outputs of the MPGCA Transport Initiatives

Internal outputs refer to the concrete actions and specific deliverables produced within the initiative's initial partners and network, focusing on:

- ***Outreach and coalition building:*** Actions to increase the number of signatories, extend geographical coverage of countries/ cities committing to the initiative, or downscaling their programs from regional level to national or city level. An example is Navigating a Changing Climate's goal to attract 100 Think Climate coalition supporters by 2020.

- ***Capacity building:*** Actions on information exchange on good practices and lessons learned, training programs, seminars and networking activities. An example is TUMI's goal to organize a series of capacity building events with at least 1000 participants. It also aims to organize regional networks, urban mobility labs, webinars and innovative approaches such as design thinking and peer-to-peer reviews.

- ***Knowledge development:*** Actions such as the release of guideline documents, operational manuals, toolkits and methodologies to enhance knowledge and facilitate the quality of actions taken by partners and relevant stakeholders. An example is the Global Sidewalk Challenge's development of a Global Walking Map tool, an online-library of walking resources and best practices, and a Walkable Cities Index.

- ***Policy-making/ policy instruments:*** Actions to provide guidance, strategic planning or advice for partnering cities and countries to provide policy recommendations and solutions in the transport sector. For example, the Global Strategy for Cleaner Fuels and Vehicles works directly with sub-regional and national partners through cooperation agreements to develop and implement clean fuel and vehicle emissions standards. EcoMobility Alliance supports alliance cities to implement a performance measure system (SHIFT).

An overview of internal outputs for each initiative is presented in Table 4:

Table 4. Overview of internal outputs of MPGCA Transport Initiatives

Initiative	Outreach and Coalition building	Capacity building	Knowledge development	Policy-making/ policy instrument
Airport Carbon Accreditation	Achieve commitments for 100 carbon neutral airports in Europe by 2030. Progress towards additional carbon neutral airports with new accreditations through continued cooperation with UNFCCC and the SLoCaT Partnership.	Share experiences and good practices with partners through dedicated airport working group, workshops, and guidance document.	Upgraded the Airport Carbon and Emissions Reporting Tool (ACERT).	
Aviation's Climate Action Takes Off	Organize two series of five Global Aviation Dialogues on market-based measures in Africa, Middle East, Europe and North Atlantic, Asia-Pacific, and the Americas.	Organize seven ATAG roundtables for industry, Sustainable Aviation Forum, and ICAO High-level meetings and informational negotiations.	Deliver the world's first CO_2 Standard for Aircraft	
below50	Introducing regional	Organize a below50		Creation of policy

Initiative	Outreach and Coalition building	Capacity building	Knowledge development	Policy-making/ policy instrument
	below50 hubs in South America, North America and Australia and diversifying the membership structure	event at BIO World Congress on Industrial Biotechnology. Look to share the insights gained in regional campaigns across the global platform		document on the European Renewable Energy Directive (REDII).
C40 Clean Bus Declaration	Develop the Fossil Fuel Free Streets Declaration which is endorsed by 12 mayors from Auckland, Paris, London, Los Angeles, Copenhagen, Vancouver, Mexico City, Barcelona, Quito, Seattle, Milan, and Cape Town. Work with ICCT to help four of the world's largest bus and engine manufacturers committed to the Global Industry partnership for soot free clean urban buses.	Organize Clean Bus Finance Academy to address barriers to electric bus adoption and speed delivery against the commitments in the declaration. Plan a Clean Bus Study Tour to take non-European cities on a tour of EV bus technology on the road across 4 leading European cities.		
Cycling Delivers on the Global Goals	Advocate for a World Bicycle Day recognized by the UN. Continue to organize Velo-city and develop WCA into a global legal entity in 2018.	Organize the 2017 edition of the Velo-city conferences series to exchange knowledge and experience on cycling.	Develop a draft EU Cycling Strategy document for the European Commission.	
EcoMobility Alliance	Bring various stakeholders together through EcoMobility World Festivals and Congresses	Provide technical expertise and the opportunity to alliance cities to share experiences and participate in knowledge exchange through the EcoMobility World Congress. Support cities to implement a performance measurement system SHIFT.	Further develop on The Kaohsiung Strategies for Leadership on Future Urban Mobility which shall provide supporting guidelines for local governments to strengthen on emerging transportation trends and new technologies, subsidies and bans including their opportunities, challenges and treats.	Support local governments to create project scenarios for future implementation of Low Carbon Action Plans for Urban Freight (LCAP-UF) and provide National EcoLogistics Policy Recommendations
EV100	Organize high-visibility communications campaign to demonstrate the growing business case for EV to companies, policy	Support EV100 members with regular webinars and other peer-learning opportunities	Develop public profiling of EV members to demonstrate the business case of	Build a unified voice from businesses on EV demand. Develop active

Initiative	Outreach and Coalition building	Capacity building	Knowledge development	Policy-making/ policy instrument
	makers and the general public		electric-mobility. Release Annual progress report outlining key achievements, opportunities and challenges of corporate EV leadership	dialogue between business and government about the framework conditions required to drive EV uptake.
GFEI	Organize high profile conference activities with partners at the TRB (Washington), the SE4ALL Forum (New York) and the ITF (Leipzig).	Launch GFEI in Colombia, Zimbabwe, Togo, Mali, and Malawi, and hold further workshops in Egypt, the Philippines, and at an ASEAN fuel economy Forum in Bangkok. Organized GFEI's global training event in Paris	Produce two new working papers which provide new insights through tracking fuel economy over a decade (2005-2015), and modelling scenarios for growth in electric vehicles by 2030.	
Global Green Freight Action Plan	Continuously updates its official website and circulate regular newsletters containing news and updates on green freight.	Conduct four regional workshops for Africa, Asia, Europe and Latin America on green freight programs	Release a number of reports e.g. Freight Assessment Blueprint, Global Logistics Emissions Council (GLEC) Framework, Green freight paper for Vietnam, and report on Black Carbon Methodology. Carry out freight assessment for Brazil and Mexico. Disseminate training programs.	
Global Sidewalk Challenge	Reach out to at least 50 Global, Regional and National Urban networks to encourage their members to develop or rehabilitate high quality sidewalks Call on all UNFCCC parties and non-state actors to include walking in their climate action plans and NDCs	Conduct expert trainings, workshops and walkshops on walking and pedestrian infrastructure. Provide technical assistance, including community engagement methods, to countries and cities	Adopt and evolve the Global Walking Map tool. Create an online-library of walking resources and best practices. Develop a Walkable Cities Index.	
Global Strategy for Cleaner Fuels and Vehicles	Adopt and issue a communique reaffirming ministers of the Climate and Clean Air Coalition	Heavy Duty Diesel Initiative (HDDI) implements the Global Strategy through	Share information and updates on the global strategy on the website and also	Work directly with sub-regional and national partners through cooperation

Initiative	Outreach and Coalition building	Capacity building	Knowledge development	Policy-making/ policy instrument
	(CCAC)s' commitment to improve air quality and slow the increasing rate of climate change by taking action to reduce emissions of short-lived climate pollutants.	capacity-building events (including training events) at the sub-regional and national levels.	through side meetings to the biannual CCAC governance meetings.	agreements to develop and implement clean fuel and vehicle emissions standards.
ITS for Climate	Seek support from more than 60 ITS associations across all continents. Launched the Digital Mobility Ideas Box at COP22.	Develop a platform and seminars to exchange good practices exchange and opportunities. Make available all reports from the Bordeaux ITS World Congress.	Build the ITS for Climate Projects & Best Practices Database	Produce guidelines for policymakers to implement more efficient ITS Solutions for climate change adaptation and mitigation.
LC2RTI		Set up 3 technical committees on Adaptation strategies/Resiliency, Environment considerations in road projects and operations, Disaster management.	Update the Intelligent Transport Systems/Road Network Operation Manual. Release the French and Spanish version of its International climate change adaptation framework for road infrastructure	Guide road authorities in implementing sustainable national strategies addressing climate change.
MobiliseYourCity	Nine national governments and 28 city governments validated as beneficiary partners. Validation of 3 new knowledge and network partners,	Organize trainings and workshops conducted in India, Morocco, Philippines, Tunisia, Peru; workshops conducted along with international events. Beneficiary partners provided with knowledge content (training programs, methodological guides, webinars, etc.)	Release the following publications: "GHG-MRV-Framework," methodological brochures on "Sustainable Urban Mobility Plans (SUMPs)," "National Urban Mobility Policies & Investment Programs (NUMPs)," "Capacity Development."	Commencement of technical assistance with beneficiary partners in Cameroun, Senegal, Tunisia, Morocco and the Philippines.
Navigating a Changing Climate	Attract 100 Think Climate coalition supporters by 2020. Reach one million individuals involved in the sector by 2020.	Organize the initiative's Climate Conference in Brussels and several technical seminars on adaptation.	Publish a methodological framework for adaptation decision-making for ports and inland waterways. Progress functional definitions for nautical port information	

Initiative	Outreach and Coalition building	Capacity building	Knowledge development	Policy-making/ policy instrument
			Upgrade the approach to terminal emissions; aligning with the ports sector; and improving approach for inland water transport.	
TUMI	Hold a competition for innovative approaches with at least 10 projects funded.	Implement more than 10 capacity building events with 480 participants from 45 cities. Organize a series of capacity building events with at least 1000 participants. Organize regional networks, urban mobility labs, webinars and innovative approaches such as design thinking and peer-to-peer reviews.	Draw from the broad knowledge base of its partners with a wealth of publications, training offers and other materials as well as established access to key resource persons and professionals.	
UEMI	Work with cities on the implementation of sustainable urban mobility measures in the context of the NUA.	The UEMI provides trainings and eLearning courses on public transport, Sustainable Urban Mobility Plans, Governance and electric mobility.	The UEMI resource center provides a toolbox with knowledge products on low-carbon transport opportunities for direct collaboration on projects focusing on sustainable urban mobility.	The UEMI and the SOLUTIONS network provide policy advice to local and national governments on integrated urban mobility solutions and implementation concepts.
UIC Low Carbon Rail Transport Challenge	Organize the Train to Paris and actively participated in COP22. Create the Climate Responsibility Pledge.	Hold workshops on rail adaption in London, Beijing, and Agadir under the RailAdapt Project Organize workshops on energy efficiency in the rail sector	Develop the Environment Strategy Reporting System (ESRS)	Benchmarking and reporting to drive improved performance and better inform transport policy.
UITP Declaration on Climate Change Leadership	Partner with the International Transport Workers' Federation. Collaborate with the German Public Transport Association to arrange low emissions shuttles for UITP members during COP23.	Organize training on BRT in Senegal; workshops on electric bus procurement in India; workshop on rail adaptation in Germany.	Organize a knowledge-building session on decarbonizing the public transport sector at the UITP Global Public Transport Summit in Montreal.	Develop guidelines and tender structure recommendations before COP23.

Initiative	Outreach and Coalition building	Capacity building	Knowledge development	Policy-making/ policy instrument
Worldwide Taxis4SmartCities	Have at least one company from one country in the LAC and Asia region to in the coming years		Launch the Taxis4Smart official website to provide information members' actions to abide by their commitments and also on clean transportation around the world, with a focus on the taxis sector	Communicate on the need, for cities, to create the appropriate infrastructure (dedicated fast charging points, dedicated lines etc.) and financing frame (special advantages for clean vehicles) so that taxis can move faster towards sustainability.
ZEV Alliance	Recruit additional governments as members; convene monthly meetings among leading ZEV governments; establish website to publicize activities; publish and present findings at transportation events	Expand network of proactive governments on electric vehicle through international meetings and recruitment hold public webinars to disseminate findings from annual exchange and research on ZEV priority topics.	Governments commission and guide research to improve electric vehicle policy, incentives, consumer awareness campaigns, zero-emission freight truck projects, and charging and refueling infrastructure activities	Governments actively working on designing and assessing current electric vehicle policy instruments

As transport initiatives are transitioning from the initial phase of organizational development, considerable effort is now being made to expand partner networks through **outreach and coalition building**. Several of the initiatives have set goals to reach a certain number of signatories and partners (e.g. Airport Carbon Accreditation, ITS for Climate, Navigating a Changing Climate, and Taxi4SmartCities) while some initiatives seek to enhance cooperation between state actors and the private sector to consolidate implementation of their targets (e.g. EV100 and UIC). An example of outreach is the Global Sidewalk Challenge calls on all UNFCCC parties and non-state actors to include walking in their climate action plans and NDCs.

Most initiatives actively incorporate **capacity building** through events and workshops (e.g. ACA, GFEI, Cycling Delivers on the Global Goals, ZEV Alliance), awareness campaigns (e.g. C40 Clean Bus Declaration), or setting up regional hubs (e.g. below50).

In terms of internal outputs on **knowledge development**, transport initiatives focus their effort on collecting data and reporting the state-of-the-art of their relevant industry (e.g. LC2RTI and Cycling Delivers on the Global Goals), collecting good practices and case studies (e.g. ITS for Climate, ZEV Alliance), and developing technical guidelines and tools to enhance quality of implementation (e.g. Airport Carbon Accreditation, GGFAP, Navigating a Changing Climate, and UIC). TUMI also makes use of the broad knowledge base of its partners to draw a wide range of publication, trainings, resource persons, and professionals from its network.

Internal outputs for **policy-making and policy instruments** have so far received relatively less attention in the planning of the transport initiatives. This could be because most initiatives are led by non-state actors with no direct access to policy-making processes in their respective countries; however, UITP develops guidelines and tender structure recommendations for policy-makers. The Global Strategy for Cleaner Fuels and Vehicles also works directly with sub-regional and national partners through agreements to develop and implement clean fuel and vehicle emissions standards.

B. Assessment of External Outcomes of the MPGCA Transport Initiatives

External Outcomes refer to the specific results anticipated by the initiative's effort to realize their goals and targets. External outcomes are intended to influence relevant stakeholders beyond the initiatives' immediate network and partners, such as transport users and policy-makers, with impacts on the city, country, or sectoral level. These outcomes are largely focusing on policy intervention and implementation:

- ***Policy intervention***: Analysis and development of specific policy recommendations for national policy-makers to incorporate sustainable transport elements in policy-making processes. For example, GFEI has developed specific fuel economy policy proposals for Egypt and South Africa and has engaged with proposals in the Philippines and Australia. Through the International Council on Clean Transportation (ICCT), GFEI has also engaged with the G20 Transport Task Force. UEMI works with 23 cities to assess opportunities for e-mobility expansion in wider sustainable transport strategies.
- ***On-the-ground implementation***: Execution of projects and specific decisions to bring about impacts to the transport sector and its general users. For example, C40 cities set targets to incorporate over 160,000 buses in their fleets by 2020, of which they have committed to switching 42,000 buses to low emission propulsion. The Global Strategy for Cleaner Fuels and Vehicles aims for most countries to achieve 50-ppm sulfur fuels by 2020 (and for all countries to reach this level by 2025) and for most countries to reach 10-ppm fuels by 2030, along with world-class vehicle emissions standards. Also, through the EcoMobility World Festival 2017, the City of Kaohsiung transformed the streets of the historical Hamasen neighborhood into a dedicated space for eco-friendly modes of transport such as walking, cycling, and various forms of public transport, including shared and light electric vehicles. Kaohsiung became the second city in Asia to showcase autonomous shuttle buses in a real urban environment and to invite the public for test-rides. The outcome document of the festival was The Kaohsiung Strategies for the Future of Urban Mobility. The Kaohsiung Strategies provide a guide for city leaders to shape the future of urban transport in their communities, and ensure safe, clean, affordable, accessible, environmentally-friendly, intelligent and connected mobility options and transport systems for their residents.

An overview of the external outcomes on policy intervention and implementation are presented in Table 5:

Table 5. Overview of external outcomes of MPGCA Transport Initiatives

Initiative	On-the-ground Implementation	Policy Intervention
Airport Carbon Accreditation	Implement a number of projects in airports relating to building and energy efficiency,	

Initiative	On-the-ground Implementation	Policy Intervention
	installation of renewable energy, replacement of air-cooled with water-cooled chillers, power plant modernization and cogeneration, LED lights, vehicle fleet modernization, etc.	
Aviation's Climate Action Takes Off	Adopted a global market-based mechanism for the aviation sector: the world's first for any sector. Deliver the world's first CO_2 efficiency Standard for aircraft in February 2016. New standard will come into effect from 2020 and will apply to all new aircraft. Current aircraft will be phased in to the standard.	
below50		Submitted a letter of support for the RenovaBio program to the Brazilian government.
C40 Clean Bus Declaration	Cities that are part of the initiative will incorporate over 160,000 buses in their fleet by 2020, of which they have committed to switching 42,000 buses to low emission.	Developed the Fossil Fuel Free Streets Declaration which is endorsed by 12 mayors around the world. These cities pledge to transition to fossil-fuel-free streets by procuring, with their partners, only zero-emission buses from 2025; and ensuring a major area of their cities is zero emission by 2030. The Declaration lays the foundation of C40's work on low emission vehicles, mobility management, bus rapid transit, walking and cycling networks.
Cycling Delivers on the Global Goals		Highlighting achievements and goals of ambitious cities aims to encourage other cities and governments to be equally ambitious in sustainable urban mobility.
EcoMobility Alliance	During the EcoMobility World Festival 2017, the City of Kaohsiung transformed the streets of the historical Hamasen neighborhood into a dedicated space for ecomobile modes of transport such as walking, cycling, and various forms of public transport including shared and light electric vehicles. Kaohsiung was the second city in Asia to showcase autonomous shuttle buses in a real urban environment and invite the public for test-rides.	Through the EcoMobility Alliance agenda ICLEI supports its network of over 1,500 cities, towns and regions with policy recommendations to create people friendly, climate neutral and socially inclusive mobility options that benefit the urban economy.
EV100	Increased EV uptake and roll out of charging infrastructure by companies. Increased sense of momentum for EV transition within business community, by policy makers and in the general public	
GFEI	GFEI works with 100 countries to produce vehicle fuel economy baselines.	GFEI has developed fuel economy policy proposals for Egypt and South Africa and engaged with proposals in the Philippines, and Australia. Through the ICCT, it has also engaged with the G20 Transport Task Force.

Initiative	On-the-ground Implementation	Policy Intervention
Global Green Freight Action Plan	By 2025: GF programs follow best practices in all major markets. Top 100 global shippers and carriers are members of GF programs.	Launched the first Green Freight Strategy in Africa.
Global Sidewalk Challenge	Ambitious short – (2020) and medium – (2030-2040) term actions to build or rehabilitate sidewalks thereby contributing to the global target of 10,000m per year between 2020 and 2030 for a total of 100,000km.	Work with multilateral development banks and bilateral development agencies to include sidewalk construction in their annual urban transport portfolio.
Global Strategy for Cleaner Fuels and Vehicles	Most countries to achieve 50-ppm sulfur fuels by 2020, all countries to reach this level by 2025 and most countries to reach 10-ppm fuels by 2030 – combined with world-class vehicle emissions standards.	
MobiliseYourCity	Improve economic and environmental fitness of metropolitan areas through more efficient urban transport; enhance livability and prosperity of cities, reduce congestions, road fatalities, noise and air pollution, as well as complying with national/international commitments on GHG emission reduction.	Assistance in formulation of National Urban Mobility Policies & Investment Programs (NUMPs) and Sustainable Urban Mobility Plans at city level (SUMPs), which target at enhancing framework conditions for large scale investments in sustainable urban transport infrastructure and development of integrated, multimodal mobility services, making optimum use of inter-ministerial policy making, linkage with budgeting & finance, and participatory planning approaches.
Navigating a Changing Climate	Promote shift to low carbon infrastructure through consolidation of carbon accounting methodologies for navigation infrastructure. Promote adaptation and seek integrated and sustainable solutions and policies under the "Working with Nature" program (2 actions in 2016-2017).	
Taxis4SmartCities	50% increase in rail's share of passenger transportation by 2030, and doubling by 2050 (2010 baseline). Rail freight activity equal to that of road freight by 2030, and exceeding road freight volumes by 50% by 2050.	Raise the awareness of public authorities on the constraints that could impede the development of low-emissions taxis (ex.: lack of well-positioned fast charging points), the need for professional taxi drivers, and the need to ease the use of taxis as complementary with public transport means
UEMI	Works with 30+ cities to assess the opportunities for e-mobility concepts in their wider sustainable transport strategy. Works closely with city governments and supports in the development of feasible action plans for pilot projects.	Provides policy advice to the national governments on local needs with regard to support from
UIC Low Carbon Rail Transport Challenge	Organize workshops on energy efficiency and of workshops on adaptation. Work on the framework for adaptation and the data base Environment Strategy Reporting System (ESRS).	Develop the Handbook for urban mobility and framework for adaptation
UITP Declaration on Climate	Double the market share of public transport	Develop 32 carbon reduction strategies.

Initiative	On-the-ground Implementation	Policy Intervention
Change Leadership	by 2025. Gain a greater role for public transport in mobility to decrease carbon footprint as well as reducing corporate carbon footprint of regions. 86% of projects aimed at full-scale / city-wide experimentation. The rest are pilot projects, from which 31 pilot tests of hydrogen and electric buses footprint. 30% actions on Buses (clean fuels, efficiency, new lines and low carbon buses); 22% on Trains, trams, metros (new lines and train cars, vehicle efficiency). 7% actions on Combined mobility (enhancements to walking and cycling facilities, car and bike-sharing schemes)	
ZEV Alliance	Sustained government policy support for electric vehicles in the near- and mid-term. Commit to zero (local) emission vehicles making up 100% of passenger vehicle sales as fast as possible and no later than 2050 in the ZEV members.	Collaborate on policies and actions that advance the investment and innovation needed to achieve ZEV targets.

Implementation in Table 5 refers to changes that take place on the ground. A large part of the transport initiatives have set implementation-oriented outcome statements, including an increase in modal shift (e.g. UIC and UITP), share of market sales (e.g. ZEV Alliance), emission standards (Global Strategy for Cleaner Fuels and Vehicles), more sustainable infrastructure (e.g. Airport Carbon Accreditation, Global Sidewalk Challenges, Navigating a Changing Climate), more energy-efficient vehicles (e.g. Aviation's Climate Action Takes off, Taxi4SmartCities, C40 Declaration), or financing or investment incentives (e.g. Taxi4SmartCities, TUMI). Some are project-based (e.g. EcoMobility Alliance) and some apply to the whole sector or industry (e.g. Aviation's Climate Action Takes Off, UIC, UITP). However, there are other initiatives which have a greater focus on capacity building or policy intervention, and thus do not have a significant implementation component.

In contrast, external outcomes on **policy intervention** are fewer in number. As discussed previously, most transport initiatives do not have direct, institutionalized access to national policy-makers (exceptions include MobiliseYourCity, which works directly with local and national governments, and the ZEV Alliance, composed of national and subnational member governments); hence, delivering specific outcomes to influence policy-making processes is particularly challenging. Methods to influence policy include creating advocacy documents (e.g. Cycling Delivers on the Global Goals), drafting specific country policy proposals (e.g. GFEI), or developing specific country strategies (e.g. UITP, UEMI). In certain cases, initiatives are able to work on city, subnational, and country levels to support policy implementation in their respective areas (e.g. ZEV Alliance, EcoMobility Alliance). The Global Sidewalk Challenge is one of the few initiatives that cooperates with multilateral and bilateral development organizations to include sustainable pedestrian infrastructure in their urban transport portfolios.

Overall, the number of initiatives having set external outcome expectations is slightly below the number that have set internal output statements.

C. Assessment of External Impacts of the MPGCA Transport Initiatives

External Impacts refer to the significant effects and influence anticipated by transport initiatives in the context of climate change and sustainable development. These impacts are quantified end results at the global level (e.g. GHG emission reduction/ prevention, energy-related impacts, and financial/ economic benefits):

- ***GHG emission reduction/ prevention***: Actions that will result in a quantified amount of CO_2-equivalent prevented or reduced. For example, ACA states that between May 2016 and June 2017, accredited airports demonstrated a reduction of 202,184 tons of CO_2 emissions under their direct control compared to average emissions of the three previous years. below50 aims to reduce CO_2 emissions by replacing 10% of global transport fossil fuel use with low-carbon transport fuels by 2030 and 27% by 2050, which is equivalent to 2.1 Gt CO_2 avoided per year.
- ***Energy-related impacts:*** Actions that will result in quantified energy consumption reductions or facilitate the transition to more sustainable types of energy. For example, the UIC Low Carbon Rail Transport Challenge aims to achieve a 50% reduction in energy consumption from rail operations by 2030, and a 60% reduction by 2050 (from a 1990 baseline). ZEV Alliance aims to achieve over 20 million barrels of reduced oil consumption by 2050 with the transition to electric vehicles.
- ***Finance impacts:*** Actions that will result in greater investment in sustainable transport modes. For example, TUMI aims to mobilize 1 billion USD per year on average to build, modernize and augment sustainable urban mobility infrastructure, with 10 cities receiving funding for innovative approaches (i.e. approximately 100,000 USD per city).

An overview of external impacts on GHG emission reduction, energy consumption, and financing are presented in Table 5:

Table 6. Overview of external impacts of MPGCA Transport Initiatives

Initiative	GHG impacts	Energy-related impacts	Finance impacts
Airport Carbon Accreditation	50 carbon neutral airports in Europe by 2030. Between May 2016 and June 2017, accredited airports demonstrated a reduction of CO2 emissions under their direct control by 202,184 tons compared to their average emissions of the 3 previous years. Full program results for this period will become available in the new Annual Report of the initiative, to be published in October 2017.	Increased energy efficiency of airport operations.	
Aviation's Climate Action Takes Off	Achieve Carbon-neutral growth through a global and market-based mechanism, as part of a basket of aviation CO2-reduction measures.		

Initiative	GHG impacts	Energy-related impacts	Finance impacts
	Governments agreed the world's first global market mechanism for any single sector – the ICAO Carbon Offsetting and Reduction Scheme for International Aviation (CORSIA) will start to offset international aviation emissions from 2020. The initiative is now focusing on capacity building for governments and industry to implement the scheme.		
below50	Reduce CO2 emissions by replacing 10% of global transportation fossil fuel use with low-carbon transport fuels by 2030 and 27% by 2050, which is equivalent to 2.1 Gt CO2 avoided per year.		
C40 Clean Bus Declaration	GHG savings will be almost 900,000 tons per year, with a potential overall savings of 2.8 m tons each year if the cities managed to switch their entire bus fleet		
GFEI	Reduced CO2 emissions from vehicles (estimated at 0.5Gt/year by 2025 and 1.5Gt/year by 2050 – totaling 33Gt), plus cost savings, reduced air pollution and less oil dependence.	Overall average fuel economy improves by 50% by 2030 for new vehicles and 2050 for the whole vehicle fleet.	Fuel savings worth over US$8 trillion.
Global Green Freight Action Plan	By 2030: All countries are members of regional programs. GF programs demonstrate significant emission reductions from freight transport. Virtually eliminate fine particle and black carbon emissions from new and existing heavy-duty diesel vehicles and engines, and shift the freight sector to zero tailpipe emissions.	Targeting fuel savings and cost reduction for business. Green freight programs can result in 5-10% efficiency gains in targeted fleets.	By 2022: green freight financing programs established to accelerate fleet turnover and retrofits in all regions.
Global Sidewalk Challenge			Authorities will be encouraged to Invest in a minimum of 500m per year of new and rehabilitating sidewalks - targeting the transit stops that have the

Initiative	GHG impacts	Energy-related impacts	Finance impacts
			highest number of riders, the best network connectivity scores and the lowest levels of sidewalk availability and quality.
MobiliseYourCity	Each support program targets at reduction of transport-related GHG emissions in participating cities (>50%). Support at national level aims at achievement of National Determined Contributions (NDCs)		Each support program connects prepared project pipelines with budgeting & finance commitments as well as utilization of private sector investments in order to enable actual implementation and sector transformation. For this, as financing facility the MobiliseYourCity Partnership engages development banks from the very early stage in advisory processes.
Taxis4SmartCities		Accelerating the energy transition of their vehicle fleet by 2020 and 2030.	
TUMI	The mitigation impact of TUMI is currently estimated to be up to 4 million tons CO2eq by modal shift. Additional impacts will include several million USD in avoided adaptation costs. It is further aiming of increasing public transport usage of approx. 250.000 additional passengers per day, and several hundred million economic benefits due to impacts on increased health, reduced no of accidents and time saving due to increased mobility.		TUMI mobilizes investments to build, modernize and augment sustainable urban mobility infrastructure. Eligible concepts for financing shall be jointly developed with partner countries and be embedded in the overall urban planning of the respective city and national institutions. Investments target replicable, innovative approaches as well as reliable, existing technologies. We as TUMI-partners will continue and enhance our investments in sustainable urban mobility. Specific outcomes include: 1 billion USD per year mobilized (average) 10 cities will get funding for innovative approaches (approx. 100,000 USD/city)
UEMI	Achieve a 30% reduction of CO2 emissions in urban areas by 2030.		The UEMI works with partner cities on implementation concepts and bankable projects for

Initiative	GHG impacts	Energy-related impacts	Finance impacts
	Reduced emissions from transport will limit the increase in global mean temperature to two degrees Celsius, reduce local air pollution and improve urban health.		integrated urban mobility solutions.
UIC Low Carbon Rail Transport Challenge	50% reductions in CO_2 emissions from train operations by 2030, and 75% by 2050 (per pass.km and per ton.km, 1990 baseline)	50% reduction in energy consumption from train operations by 2030, and 60% by 2050 (1990 baseline)	
UITP Declaration on Climate Change Leadership	Prevent half a billion tons of CO2e in 2025 by doubling the market share of public transport by 2025.		51% of actions concern investing in sustainable transport modes. 20% actions on Improve and investment in infrastructure (lighting, energy production, use of green electricity, buildings, stations).
ZEV Alliance	Over 125 million tons CO_2 per year in 2030, and over 1.5 billion tons CO_2 per year in 2050, in climate change mitigation when including lifecycle impact of electric vehicles	Over 20 million barrels of reduced oil consumption by 2050 with the transition to electric vehicles.	

So far, 13 out of 21 initiatives have included impact-related objectives in their planning. Where impacts have been included, they are mostly defined as GHG-related objectives. Little attention has been given to the inclusion of sustainable development-related impacts, which in many cases might be instrumental in promoting the implementation of the initiatives.

D. Monitoring of Progress

With the current bottom-up, non-prescriptive approach, methods for monitoring and reporting progress on the MPGCA transport initiatives are mostly internal and informal. While not all initiatives have regular procedures to assess their outputs, outcomes and impacts, some initiatives have begun to set up reporting systems to demonstrate their progress (Table 7):

Table 7. Overview of measures for monitoring and reporting

Initiative	Measures for monitoring and reporting
ACA	• Report on program developments and carbon performance of accredited airports in its Annual Reports. • Present main program results on two dedicated websites (www.airportcarbonaccredited.org and www.airportCO2.org) • Share updates on the program a dedicated e-newsletter, which is also publicly accessible on www.airportcabronaccredited.org.

Initiative	Measures for monitoring and reporting
Cycling Delivers	• An updated list is published and monitored on ECF.com to allow the public to view which cities have made targets, and what the latest figures are.
EcoMobility Alliance	• Support cities to implement a performance measurement system (SHIFT) that ICLEI has developed to track urban mobility. • Carry out urban mobility needs assessment with selected cities. Selected cities will also evaluate the EcoMobility Alliance related projects that they intend to implement. The needs assessment will begin a first stage of awareness raising for cities thorough a collective and conscious identification of actions that other cities are undertaking to advance urban mobility. • Reports of the results and progress for the initiative are elaborated every 2 years and made publicly available on the official website.
EV100	• The annual progress report will be a key instrument to track progress and will be made publicly available on the website.
GFEI	• Country progress on implementing policies is regularly shared on the GFEI website. • Global progress is regularly reported through regular fuel economy trends analysis.
Global Green Freight Action Plan	• A steering group made up of volunteer partners of the CCAC (Canada, United States, Clean Air Asia, International Council on Clean Transportation, Smart Freight Centre) tracks actions and reports progress annually. Indicators include: number of additional actions, number of additional stakeholders engaged and countries committing to set up green freight programs, total amount of additional funding mobilized. • The progress of the initiative is reflected in the official Global Green Freight website, the Climate and Clean Air Coalition website and the Annual Report of the Coalition.
Global Sidewalk Challenge	Progress made under the initiative will be tracked with the following indicators: • Progress made under the initiative will be tracked through the initiative website, reported to the Walk21 Foundation Board of Trustees and disseminated through Walk21 outreach channels. • Evaluation will include both the level of engagement with the initiative as well as actual delivery of sidewalks around the globe.
Global Strategy for Cleaner Fuels and Vehicles	• HDDI develops new data and tools to both motivate and demonstrate progress towards deployment of soot-free diesel engines. Activities include annual reporting on global progress as well as visibility of the Global Strategy to address clean diesels worldwide. • Progress will be shared through the CCAC website and also through bi-annual meetings with partners. • Important milestones will also be shared through press releases, web feature stories and social media.
MobiliseYourCity	• Definition of Monitoring & Evaluation framework in progress; • Progress of the initiative is also included in the 2017 annual report of the MobiliseYourCity Partnership
Navigating a Changing Climate	• The Navigating a Changing Climate partners meet regularly, the Action Plan is monitored and progress against actions is reported twice yearly.
TUMI	• Progress of TUMI will monitored and reported annually, including on the official website at http://transformative-mobility.org/
UEMI	• Ongoing opportunities, activities and results of the initiative are made public on www.uemi.net
UIC	• Monitor and report the progress by the rail sector towards achieving the goals using a dedicated Reporting System managed centrally by UIC and externally verified by an independent body. Results will be published on yearly basis on a dedicated internet site (www.CO2data.org). • The initiative will release the IEA-UIC Handbook 2017 and 2018. It will also release the first report on the global register of modal shift projects.
UITP	• Annual reporting on implementation is available on the UITP official website at http://www.uitp.org/climate-leadership • Reports of implementation for 2015 and 2016 is available to download. The 2017 report will be available online from late August / early September 2017.

Initiative	Measures for monitoring and reporting
Worldwide Taxis4SmartCities	• Progress of the initiative will be reported at the end of 2017

The most common approach for the MPGCA Transport Initiatives to monitor and report on their progress is through annual reports. For example, Airport Carbon Accreditation has decided to issue annual reports to provide all the key figures for the initiative, including the number of airports accredited, the collective reduction achieved and cases studies detailing some of innovative ways that airports have achieved accreditation. EV100, GGFAP, MobiliseYourCity, and TUMI also report on their progress on an annual basis.

All of the initiatives that include reporting measures also make use of their official websites to report on progress made to date. In addition, some initiatives further disseminate their results via e-newsletters (e.g. Airport Carbon Accreditation), meetings with partners, web feature stories, and press releases on social media (e.g. Global Strategy for Cleaner Fuels and Vehicles).

In addition, EcoMobility works to help cities to use a performance measurement system (SHIFT) to track progress in the context of urban mobility. The Global Sidewalk Challenge also developed a set of indicator framework to evaluate its progress in a structured manner. Under the Global Strategy for Cleaner Fuels and Vehicles, the HDDI develops new data and tools to demonstrate progress towards deployment of soot-free diesel engines.

Other actions taken to assess progress are largely internal or informal. For example, GFEI monitors the external impacts of the policies for which it advocates through ongoing reports tracking average fuel economy rates over time. The Cycling Delivers on the Global Goals will also monitor the development of modal share of cycling in at least 70 cities and regions in its network through the initiative's website.

IV. Policy barriers and importance of state support

Since their initial emergence in 2014, there have been growing awareness and recognition within the sustainable transport community on the importance and impact of the MPGCA Transport Initiatives. Nonetheless, only with wide support from *both* state and non-state actors can MPGCA Initiatives implement their commitments at scale and help increase ambition of NDC´s and the efficiency of their implementation.

This chapter gives an overview on the policy barriers to the further scaling up of the MPGCA Transport Initiatives. It also gives specific examples and approaches on what state actors can do to facilitate the widespread deployment of the MPGCA Transport Initiatives.

A. Policy Barriers

A number of initiatives have identified the policy barriers to further scaling up their initiatives. These include the following:

- **Lack of awareness and political will:** Some initiatives, such as Cycling Delivers on the Global Goals and GFEI, indicated that although their initiatives have set specific, quantified targets and offered policy proposals for sustainable transport development, successful implementation is largely dependent on the willingness of governments (at both national and local levels) to implement such targets and recommendations. GFEI therefore works to show that there are significant overall benefits for countries to engage, including cost savings and improved balance of payments, with the goal to increase their willingness for implementation.

  The Global Strategy for Cleaner Fuels and Vehicles pointed out that any change in fuel prices or stricter standards for vehicle imports are often viewed as unpopular by policy-makers, and for these reasons, there is a lack of political prioritization of low-sulfur fuels.

  The EcoMobility Alliance indicated that in order for cities to implement transformative projects, three crucial ingredients are essential: awareness, good practices and access to funding. For cities to implement successful eco-mobility projects, key decision makers and technical personnel must be able to understand the variety of eco-mobility options and conceptualize the kind of cities they want to create. This will enable cities to design projects in a more systematic way that promotes livable cities and people-centered mobility paradigms.

  For Taxi4SmartCities, the main barrier is linked to the fact that states and cities do not fully realize the role electric taxis could play in the energy transition of the whole transport sector. Hence it lacks the policies favorable for construction dedicated fast-charging infrastructure for electric taxis.

- **Limited autonomy of local government:** Another policy barrier pointed out by UITP is that while cities and local governments are actively engaged in the initiative, it is essential that local authorities are enabled by national government, and that perverse incentives and policies (e.g. fossil fuel subsidies) are eliminated.

  MobiliseYouCity also pointed out that the institutional landscape poses barriers to the implementation of SUMPs. Therefore, it is essential to promote financial autonomy and investment programs for infrastructure development for local governments.

- **Lack of financial and human resources:** In the case of GGFAP, many countries lack a robust policy supporting sustainable freight. Although there is immense demand from countries to understand and implement green freight programs and reduce freight emissions, very often there are not sufficient financial and human resources to fulfill that demand. The combination of robust technical assessments and standardized tools and methodologies together with stakeholder engagement (e.g., workshops) are essential to overcome such policy barriers.

  The Global Strategy for Cleaner Fuels and Vehicles pointed out that there are significant cost barriers to low-sulfur fuel adoption, which include cost of refinery capacity and cost to consumers; in addition, cost recovery can be made difficult by regulated fuel prices, which poses major challenges to scaling up the initiative.

  MobiliseYourCity indicated that urban mobility is not an explicit priority area with respect to

government funding and climate finance, which is a hurdle to generate the needed funding for technical assistance. UEMI also pointed out that investment barriers are still the most prevalent obstacles to the widespread uptake of electric mobility, and the policy packages composed of different measures are needed.

- **Lack of robust data:** For Cycling Delivers on the Global Goals, a lack of data collection on cycling and active modes of transport – especially without a clear baseline modal share – makes it difficult for cities to create targets and to track progress. GGFAP also indicated that the lack of data is an obstacle to carrying out robust freight assessment on the local market, technology, and operational strategies.

B. Importance of State Support

MPGCA Transport Initiatives have identified a number of approaches in which state actors can increase their support to facilitate more widespread deployment:

- **Increase recognition of initiatives:** For ACA, it is essential that state actors provide increased recognition to accredited airports in their remit, and encourage accreditation of new airports. Taxi4SmartCities indicated that states and cities should acknowledge that the taxi sector could play a key role in speeding up the energy transition of the whole transport sector. As a first step, government should also get committed to building a dedicated fast-charging infrastructure for taxis.

- **Adoption of strategies and targets for sustainable transport:** For Cycling Delivers on Global Goals, the key for state support is to develop and adopt a national cycling strategy. State governments should also encourage cities to have sustainable mobility plans where clearer targets on modal share are required. The EcoMobility Alliance indicated that national governments can support local governments in setting ambitious targets on sustainable transport. GGFAP also pointed out that states should develop a robust policy supporting sustainable freight to build the foundation for a green freight program. The Global Strategy for Cleaner Fuels and Vehicles pointed out that government should publicly commit to the targets and timelines of the Global Strategy in order to motivate them to allocate national resources for cleaner vehicles.

  For UEMI, while some countries have made noticeable progress towards e-mobility, many others have largely failed to do so. States need to set national targets for transitioning to e-mobility as well as to expanding renewable energy sources. Policies are to be set in place for greater support to EVs and related industries (e.g. in the form of fiscal investments for R&D). Local regulatory incentives (e.g. free parking or access lanes for EVs) further facilitate the uptake. Disincentives for conventional car usage such as phasing out oil subsidies can also accelerate the transition.

  For TUMI, countries should define urban mobility measures in their NDCs, preferably with a specific sector target, and/ or develop sector plans or legislation on urban mobility (e.g. National Urban Mobility Policies (NUMPs)), which would be a strong incentive for cities to increase ambition.

- **Financial incentives:** EV100 indicated that governments can support corporate EV uptake through a range of financial and non-financial incentives, as well as collaborative initiatives such as joint infrastructure planning and public-private investments.

- **Using standardized tools and methodologies to align with international best practices:** GGFAP pointed out that the most effective support from state actors is to leverage the initiative's set of standardized tools and methodologies to ensure that national green freight programs are aligned with international best practices.

Table 8. Examples of state support for MPGCA Transport Initiatives

Initiative	Example Of state support
ACA	The US Federal Aviation Administration and the European Commission are strong supporters of Airport Carbon Accreditation in their respective regions.
Global Green Freight Action Plan	The U.S. Environmental Protection Agency has launched their SmartWay green freight program in 2004, and has since invested consistently in the development of technical information, industry engagement and data collection for many years.[4]
Global Strategy for Cleaner Fuels and Vehicles	The main endorsers of this initiative are states – some of them already have world-class standards, while others are committed to moving from dirty diesel. These states cooperate, share information and experience and work together to move the whole world to clean transport. Examples include: • West African countries commit to low sulfur fuels from July 2017 - Nigeria just published their new standard, approved by the Minister of Trade. This proposal would assist the sub-region in implementing these new standards; • Southern African countries (Mozambique, Malawi and Zimbabwe) to switch to low Sulphur diesel fuels from June 2017; Mozambique has published its new standards. This proposal would assist the sub-region in implementing new standards; • Paraguay adopted a 50 ppm standard nationwide, December 2015. • Uruguay reached agreement for a national Euro 4 import standard with car importers, Euro 5 when 10 ppm sulfur fuel will be more widely available nationwide; Costa Rica now proposing a move to Euro 3 (2017), Euro 4 (2018), Euro 6 (2021) vehicle emission standards. • East African countries Burundi, Kenya, Rwanda, Tanzania and Uganda formally adopted national standards for 50 ppm sulfur in fuels as of 1 January 2015.
MobiliseYourCity	The Government of Morocco has established a National Committee on Urban Mobility Development, as conducted under the umbrella of MobiliseYourCity. That Committee sets the framework and follows up the dialogues with several local level governments.
Taxis4SmartCities Initiative	Ségolène Royal, former French Minister for Environment, promoted the initiative in a speech at the COP21. Her team then proposed to the initiative to communicate about Taxis4SmartCities in French embassies around the world.
UEMI	Particular progress was made in India (Kochi) and Brazil (Belo Horizonte) where implementation action is supported by the local government.
UITP	Many NDCs have said they will be addressing emissions from the transport sector and in some cases have identified public transport interventions as a mitigation source. For example, China proposes a modal shift to public transport to 30% in medium and large cities (Israel has set similar goals), Japan's proposed transport measures include promoting modal shift to public transport, Jordan's proposed transport measures include increasing public transport mode

[4] https://www.epa.gov/smartway

Initiative	Example Of state support
	share to 25%, by 2025 and Benin has pledged to further develop its urban public transport. Many others have pledged urban transport improvements as well as the scaling up of clean public transport vehicles and compact urban development. Outside of the climate talks, Malaysia has targeted a 40% mode share shift in cities through the adoption and support to Sustainable Urban Mobility Plans. Singapore is another example of a national government's commitment to public transport.

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C. Conclusions

The bottom-up approach for monitoring progress is generally welcomed by the initiatives. As the 21 initiatives cover a wide range of transport sub-sectors with varying targets in different timeframes, setting a common framework for monitoring would be a challenging task, and could ultimately undermine the commitment of the respective organizations to the implementation of their initiatives. Delegating the responsibility for developing monitoring and reporting methodologies to the initiatives can facilitate the success of these methodologies.

The lack of a clear set of guidelines for reporting is largely due to the low comparability between the initiatives. Some initiatives have set quantified targets to reducing/ preventing GHG emissions (e.g. C40 Clean Bus Declaration, GFEI); some have set targets for modal shift (e.g. Cycling Delivers on the Global Goals, UIC Low Carbon Sustainable Rail Transport Challenge, UITP Declaration on Climate Change Leadership); some focus on actions in capacity building and policy interventions (e.g. MobiliseYourCity), and some on knowledge development (e.g. Navigating a Changing Climate).

The approach piloted in this report to distinguish between various categories of internal outputs and external outcomes and impacts is intended to help initiatives to structure the planning of their initiatives, without prescribing a methodology for planning and reporting of the initiatives. It is noted, however, that inducing a stronger sense of responsibility for assessing progress can be a challenge, as some of the initiatives have not set up a dedicated website as a way to report on their progress.

Lastly, it is also observed that policy-related internal outputs and external outcomes have received relatively less attention among the transport initiatives. The lack of focus on policy instrument development and strategic advisory may be due to the fact that many initiatives do not have institutionalized channels with state actors and policy-makers, making it difficult for them to offer policy recommendations that would be taken into consideration in the long run.

V. MPGCA Transport Initiatives and the Link to SDG Related Transport Targets

The MPGCA Transport Initiatives were developed as climate change-oriented commitments. With the increasing emphasis on implementation of the initiatives, it becomes increasingly important to consider how to optimize the chances for effective and timely implementation of the initiatives. Buy-in from policy makers for the initiatives is of key importance. Experience has demonstrated that policy and investment decisions in transport are usually not made on the basis of one factor, but rather that multiple criteria play a role. Climate change is in fact not the most important factor in policy making on transport and investment related decisions in many countries, especially the developing world, as compared to more immediate development priorities (e.g. clean air, congestion, access).

In response to this broader need, this chapter explores the linkage between the 21 MPGCA Transport Initiatives and the transport-related SDG targets under the 2030 Agenda for Sustainable Development.

A. MPGCA Transport Initiatives and SDG targets

The SLoCaT Partnership has identified five SDG targets with *direct* implications for the transport sector, and seven SDG targets with *indirect* implications for transport. Table 9 gives an overview of the linkages between the 21 MPGCA Transport Initiatives and these 12 SDG targets:

Table 9. Linkages between the MPGCA Transport Initiatives and the SDGs

MPGCA Transport Initiatives	SDGs (Direct Targets)					SDGs (Indirect Targets)						
	3	7	9	11	12	2	3	6	11	12	13	13
	3.6 Road Safety	7.3 Energy Efficiency	9.1 Sustainable Infrastructure	11.2 Urban Access	12.c Fuel Subsidies	2.3 Agricultural Productivity	3.9 Air Pollution	6.1Access to Safe Drinking Water	11.6 Sustainable Cities	12.3 Food Loss and Waste	13.1Climate Change Adaptation	13.2 Climate Change Mitigation
Airport Carbon Accreditation		■	■				■					■
Aviation's Climate Action Takes Off		■										■
below50		■			■		■		■			■
C40 Cities Clean Bus Declaration		■	■	■			■		■			■
Cycling Delivers on the Global Goals	■		■	■			■		■			■
EcoMobility Alliance	■	■	■	■	■		■		■		■	■
EV100		■					■		■			■
GFEI		■			■		■		■			■
Global Green Freight Action Plan		■	■		■		■		■			■
Global Sidewalk Challenge	■		■	■					■			■
Global Strategy for Cleaner Fuels and Vehicles		■					■		■			■

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	3.6 Road Safety	7.3 Energy Efficiency	9.1 Sustainable Infrastructure	11.2 Urban Access	12.c Fuel Subsidies	2.3 Agricultural Productivity	3.9 Air Pollution	6.1Access to Safe Drinking Water	11.6 Sustainable Cities	12.3 Food Loss and Waste	13.1Climate Change Adaptation	13.2 Climate Change Mitigation
ITS for the Climate	■		■	■			■		■			■
LC2RTI			■	■			■		■	■	■	■
MobiliseYourCity	■	■	■	■	■		■		■			■
Navigating A Changing Climate			■				■				■	■
Taxis4SmartCities	■	■	■	■	■		■		■			■
TUMI	■	■	■	■	■		■		■		■	■
UEMI		■	■				■		■			■
UIC Low-Carbon Sustainable Rail Transport Challenge		■	■	■			■		■		■	■
UITP Declaration on Climate Leadership	■	■	■	■	■		■		■			■
ZEV Alliance		■	■				■		■			■

Overall the strongest linkage exists with the linked SDG targets on energy efficiency and climate change, and on the latter there is a stronger linkage with mitigation than adaptation.

Those initiatives that have a focus on transport infrastructure and systems (e.g. C40 Cities Clean Bus Declaration, UITP Declaration on Climate Leadership, Cycling Delivers on the Global Goals, Global Sidewalk Challenge) score well on urban access-related targets and should be able to actively explore this linkage in outreach to policy makers and investment decision makers. Initiatives with a technology oriented focus, (e.g. GFEI, EV100, UEMI, ZEV Alliance) have a strong linkage with the air pollution reduction target under the SDGs. The same applies to initiatives that promote mode shift such as railways, public transport and cycling.

There is some linkage with the road safety target through the use of technology, more careful driving, planning and modal shift. The 21 initiatives have in common that they do not substantially contribute to realizing the (indirect) transport targets with mostly a rural focus: Agricultural Productivity (SDG 2) and Access to Safe Drinking Water (SDG 6).

The focus of this analysis has been the linkage between transport related SDG targets and the MPGCA Transport Initiatives. Several of the initiatives also have linkages to other SDGs that are not directly related to transport. For example, a number of the initiatives contribute to SDG 1 ("End poverty in all its forms everywhere") by developing employment opportunities through new investments and creating access to jobs. Similarly, some of the initiatives such as cycling and public transport create access to schools for children, especially for girls in rural and urban areas and hence contribute the SDG 3

("Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all") and SDG 5 ("Achieve gender equality and empower all women and girls").

VI. MPGCA Transport Initiatives and their Link to Nationally Determined Contributions (NDCs)

At COP21, countries agreed to limit global temperature rise to well below 2 degrees Celsius, while pursuing efforts to keep temperature rise to 1.5 degrees[5]. NDCs[6] are a crucial element of the Paris Agreement in communicating country-level commitments to reduce carbon emissions and increase resilience for the post-2020 period. NDCs introduce a bottom-up process to define country-level mitigation and adaptation efforts that are guided by national development priorities, equity, and common responsibility.

Investigations of submitted NDCs carried out by a number of research institutions point to a projected economy-wide emission gap of 10-17 billion tons between committed NDCs and the two-degree Celsius scenario (2DS) scenario by 2030.[7] Further, SLoCaT analyses on the submitted NDCs reveal that the mitigation ambition in current NDCs will not be sufficient to achieve a 2DS within the transport sector by 2030[8]. Thus, to achieve the COP21 goal requires a truly global response from all Parties and non-Party stakeholders (e.g. governments, cities, businesses, investors, civil society) and all sectors including transport.

A. MPGCA Transport Initiatives and NDCs

NDCs represent a unique opportunity to increase bold mitigation and adaptation measures in transport and other sectors. It is very much in the interest of the MPGCA Transport Initiatives to leverage NDCs submitted to increase country buy-in for their respective initiatives. An association with an NDC can help the initiatives get policy support (and in some cases also investment support) to implement their initiative in a greater number of countries. In return, countries that have included specific transport measures in their NDCs but do not have detailed supporting policies and implementation plans can benefit greatly from the MPGCA Transport Initiatives to ensure that they will have realistic implementation policies and plans prior to the formal effective date of NDCs in 2020.

Figure 1 shows that 32% of NDCs[9] do not include any measures related to the MPGCA Transport Initiatives. 37% of NDCs make reference to 1 to 5 MPGCA Transport Initiatives, 20% make reference to 6 to 10 initiatives and 12% of NDC make reference to 11 to 21 Initiatives.[10]

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[5] 195 Nations Set Path to Keep Temperature Rise Well Below 2 Degrees Celsius

[6] If a Party has communicated an intended nationally determined contribution (INDC) prior to joining the Agreement, then its INDC shall be considered the Party's first NDC under the Agreement unless that Party decides otherwise. In this analysis, we assume all INDC's as NDC's.

[7] Partnership on Sustainable, Low Carbon Transport. 2016. SLoCaT Analysis of NDCs Sees Potential for Ambitious Action on Climate Change in the Transport Sector. http://bit.ly/2njvgKW

[8] Emission Reduction Potential in the Transport Sector by 2030

[9] Total number of NDCs considered is 164.

[10] "Aviation's Climate Action Takes Off" includes initiatives related to "international aviation" including the development of a global market-based mechanism for international aviation. By definition, international aviation cannot be part of the UNFCCC

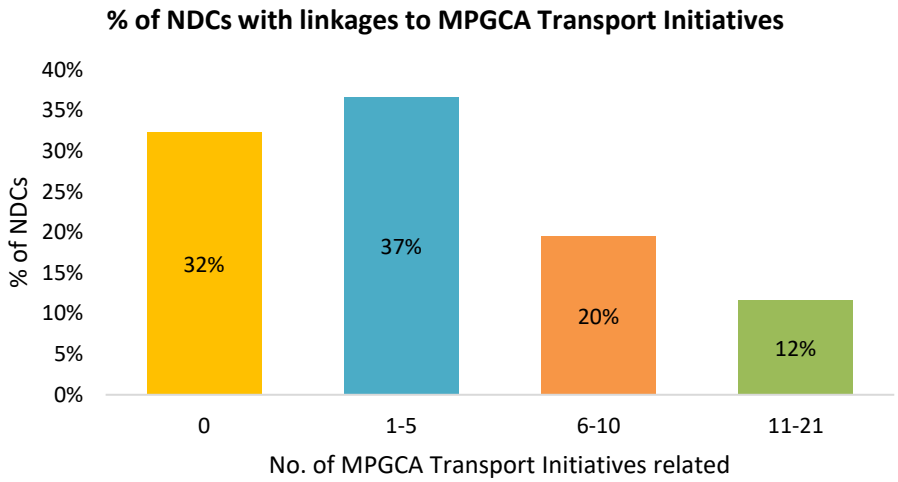

Figure 1. Percentage of NDCs with linkages to MPGCA Transport Initiatives

Figure 2 shows that about 68% of NDCs are directly or indirectly connected with the MPGCA Transport Initiatives. Among the 21 initiatives, GFEI has the strongest linkages, with more than 45% of NDCs having direct and indirect measures to fuel economy standards. It is followed by UITP Declaration on Climate Change Leadership (43% of NDCs), TUMI (41%) and EcoMobility Alliance (41%). Aviation-related transport initiatives, including ACA and Aviation's Climate Action Takes Off, have weak linkages to NDCs (2% and 4% respectively), and very few NDCs (3%) include ITS measures, as linked to ITS for Climate.

NDCs and therefore this graph and the analysis in this section doesn't include the initiative "Aviation's Climate Action Takes Off".

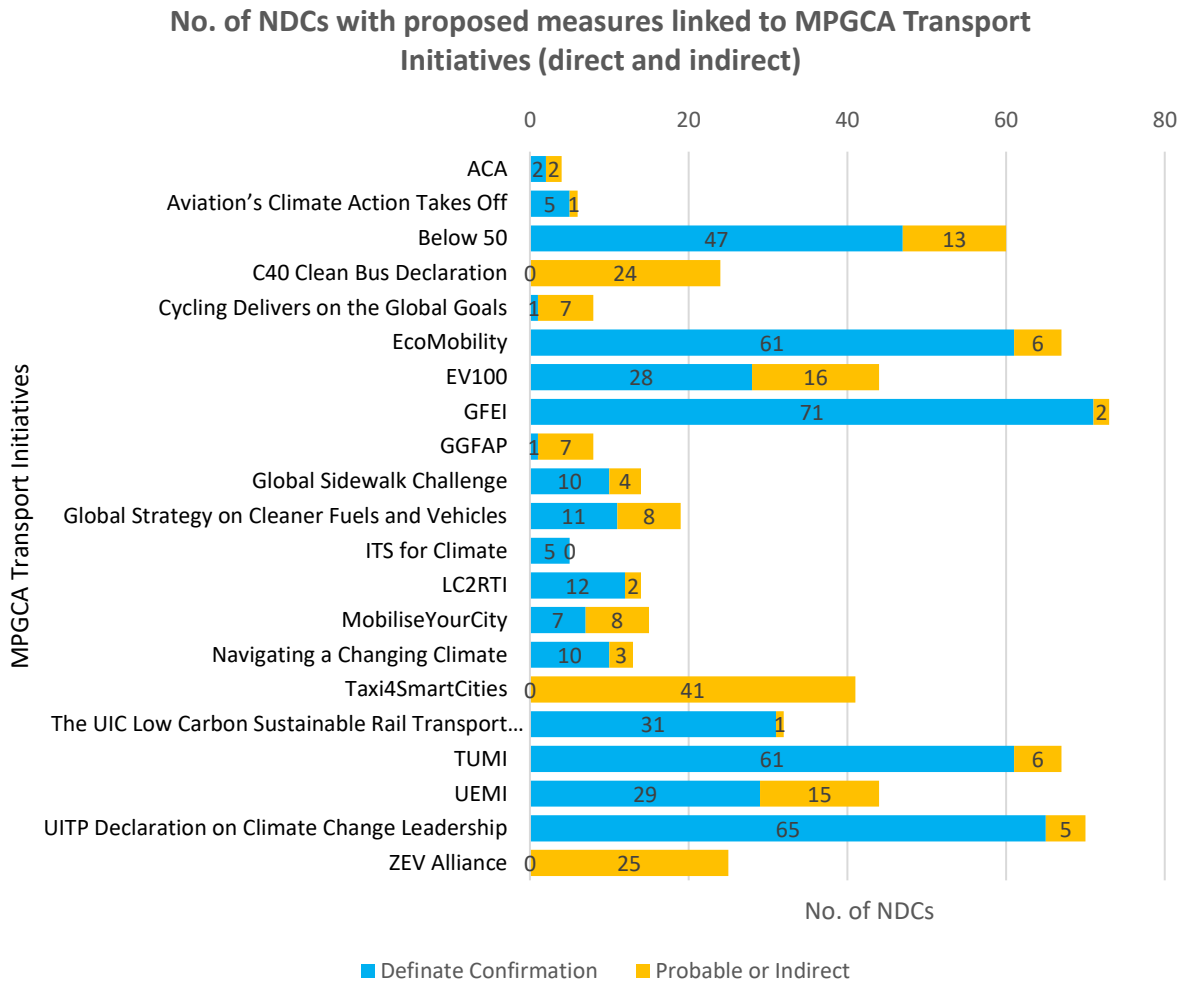

Figure 2. Number of NDCs that contain proposed measures linked to the MPGCA Transport initiatives (Direct and Indirect)[11]

MPGCA Transport Initiatives with a strong focus on GHG emission reductions (e.g. GFEI, below50) or a broader mandate for sustainable transport development (e.g. UITP Declaration on Climate Change Leadership, TUMI, EcoMobility Alliance) are the ones that contain the most measures mentioned in NDCs. This is largely due to the fact that transport-related measures in the NDCs are heavily skewed towards urban passenger transport, with urban transport measures being mentioned in 74% of NDCs. Freight transport and adaptation measures have received significantly less attention among NDCs (only 29% of NDCs included specific freight transport modes; the transport sector is mentioned in general terms among climate adaptation measures in 16% of NDCs, and only 4% of countries identify transport-specific adaptation strategies). Therefore, transport initiatives with focuses on green freight (e.g. GGFAP) and adaptation (e.g. Navigating a Changing Climate) have relatively weak linkages with the NDCs.

[11] We consider both - definite confirmation of link of the initiative with the country and probable and/or indirect link of the initiative with the country. This could also mean that country could be a potential partner of the initiative.

The Paris Agreement on climate change has various implications for solidifying the position of NDCs within the UNFCCC framework.[12] The Agreement proposes a timeframe up to 2025 (or 2030) to communicate by 2020 a new NDC (or substitute) and to do so every five years. It is thus crucial that MPGCA Transport Initiatives continue to reach out to national governments to define their commitments and policy intervention through NDCs to increase country buy-in to their respective initiatives over time.

VII. Conclusions and Recommendations

This report set out to provide an overview of the MPGCA Transport Initiatives with an emphasis on progress since COP22 in November 2016. The report reviewed in some detail the manner in which the initiatives monitor and report progress. The alignment of initiatives with the Paris Agreement on Climate Change and the 2030 Agenda on Sustainable Development was reviewed by looking at the linkage between the transport initiatives and the transport related targets under the SDGs and the NDCs.

A. Progress since COP22: expanding activities and impacts

During 2017, the Transport Initiatives have continued to expand their activities and on the ground impact. They benefit from the growing interest to act on transport, which is growing in part because of the NDCs (75% of which prioritize transport action). Progress is being made at a policy level with more low carbon transport related policies being put in place as well as through concrete actions on the ground, e.g.:

Table 10. Summary of progress of MPGCA transport initiatives[13]

Initiative	Summary of Progress in 2017
Airport Carbon Accreditation	- As of September 2017, number of carbon neutral airports increased to 35 worldwide. - Commitment of 50 carbon neutral airports in Europe by 2030 increased to 100 by 2030.
Aviation's Climate Action Takes Off	- Governments agreed the world's first global market mechanism for any single sector - New ICAO Carbon Offsetting & Reduction Scheme will offset emission growth from 2020.
C40 Cities Clean Bus Declaration of Intent	- 26 C40 cities committed to purchase over 40,000 clean buses by 2020, saving 1mt of CO2/year. -Due to decrease in price of electric buses, London increased their order of e-buses 5-fold.
Cycling delivers on the Global Goals	- Successful participation in NUA process; cycling in NUA ! - Draft EU Cycling Strategy delivered to EU at Velo-city 2017.
EcoMobility Alliance	- As of 2017, the EcoMobility Alliance works with 22 cities and more than 300 partners. Delivered the The Kaohsiung Strategies for the Future of Urban Mobility which provide a guide for city leaders to shape the future of urban transport in their communities, and ensure safe, clean, affordable, accessible, environmentally-friendly, intelligent and connected mobility options and transport systems for their residents.
GFEI	- GFEI continues to extend capacity building and policy support, in total to over 50 countries. - GFEI is expanding focus to include improving efficiency of Heavy Duty Vehicles and EVs.
Global Green Freight Action Plan	- Green freight programs are expanded to Latin America, Asia, and Africa's Northern Corridor - Release of Black Carbon Methodology for the Logistics Sector - European programs are increasing collaboration on green freight.

[12] http://unfccc.int/resource/docs/2015/cop21/eng/l09r01.pdf

[13] This overview only covers progress of selected transport initiatives and excludes the six new transport initiatives set up in 2017.

Initiative	Summary of Progress in 2017
LCR2TI	- Further investigation on electric roads and autonomous vehicles. - International seminars held in Mexico and Cuba in 2017 on Adaptation.
MobiliseYourCity	- Commencement of operations, including opening of secretariat - Advisory on national urban mobility policies and plans in selected countries.
Navigating A Changing Climate	- Technical mitigation & adaptation guidance for navigation infrastructure. - Sector-specific awareness raising via website, workshops and conferences.
Taxis4SmartCities	- Established as an association based in Brussels, with a budget, action plan & website. - Engaging with C40 and others, to incite taxis companies around the world to join T4SC.
UEMI	-Making progress on implementation concepts for e-mobility solutions in India and Brazil -Provides training & e-courses to cities on the implementation of sustainable urban mobility
UIC Low-Carbon Sustainable Rail Transport Challenge	-Rail sector energy efficiency has improved by more than 36% (per TU- passenger-km + tone-km) since 1990 -Rail sector CO2 emissions have improved by 32% (per TU- passenger-km + tone-km) since 1990 -Global Register of Modal shift projects in Partnership with the International Rail Journal. 1500 railway modal shift projects identified with a value exceeding $ 1.86Tn.
UITP Declaration on Climate Leadership	- Goal to double the market share of public transport by 2025 - 75% of 350 climate actions pledged are being implemented, up 54% since last year.
ZEV Alliance	- Collaborated to expand zero-emission vehicle charging and hydrogen infrastructure - Assessed technical options to transition to zero-emission heavy-duty freight vehicles

B. Clear acceleration signals for non-state actor action since COP22

The initiatives note increasing interest from more partners and partner in new countries – with six new, well-considered initiatives joining in 2017 – it brings the total to 21, which is a 40% increase from 2016.

MPGCA Transport Initiatives are, in addition to NDC related interest, also benefitting from the coming together of the sector in the Sustainable Mobility for All (SuM4All) initiative which is expected to spark further increased interest for action by non-State actors. The SuM4All Initiative intends to act as a platform for advocacy to influence policies on sustainable mobility at global to local levels. SuM4ALL is currently developing a Global Tracking Framework (GTF) with the attempt to examine performance of the transport sector globally, and its ability to support sustainable mobility.

The corresponding Global Mobility Report (GMR) 2017 by the SuM4ALL initiative establishes a baseline for data and indicators built around three components: a vision for sustainable mobility articulated around four global objectives (Universal Access, Efficiency, Safety, and Green Mobility); global targets drawn from international agreements; and transport-relevant indicators supported by country data and agreed methodologies.

In addition, the MPGCA Transport Initiatives are benefitting from greater efforts on policy and analysis effort from non-state actors such as the Global Macro Roadmap developed by the PPMC, which outlines an actionable vision towards decarbonized and resilient transport; and ITF's Decarbonizing Transport which is a global, data-driven, multi-stakeholder initiative to support the transition to carbon-free transport.

C. Achievements made towards building resilience to climate change

The transport sector is benefitting in that respect from the momentum created by the "COP22 Declaration on Accelerated Action on Adaptation in Transport"[14] in November 2016. There is generally an increasing attention to adaptation across the transport Initiatives that are working to further raise awareness of its importance.

For example, the Navigating a Changing Climate Initiative and the UIC-Low Carbon Sustainable Rail Transport Challenge have provided a variety of sector specific guidelines and workshops on transport adaptation to climate change. Transport is one of four sectors of the Global Centre of Excellence on Climate Adaptation that will be launched formally at COP23. The Partnership on Sustainable Low Carbon Transport (SLoCaT) has been selected as the transport sector knowledge partner and SLoCaT is actively liaising with adaptation and resilience relevant initiatives to advance action and attention on building resilience in transport.

D. Key priorities for non-state actor initiatives to succeed on the ground and priorities to address immediate onset of climate disasters

Overarching priorities for transport related initiatives to strengthen their on the ground impact are greater access to policy makers and predictable, short-, and medium term funding. There is significant interest in many countries but the initiatives lack the resources to fully respond to all the interest. Many lower and middle income countries (where much of the growth in transport emissions will take place) lack the local conditions for easy uptake of non-state action. For non-state action to flourish in these countries specific efforts and resources will be required. At the same time, it is these low and middle income countries that are especially vulnerable to climate disasters.

Overall, the "business case" for investing in adapting transport infrastructure and services to a hanging climate needs to be articulated more clearly. Urban growth and business trends will lead to an explosion in urban transport demand – the urban oriented transport initiatives can help ensure developing cities plan to minimise transport demand (e.g. through the local supply of goods and opportunities) and through prioritising space for efficient, low carbon forms of transport. If done well, the development of low-carbon transport strategies can at the same time help strengthen climate resilience by incorporating adaptation in an active manner in planning and mitigation related activities.

E. Narrative describing top policy "asks" for acceleration of climate action in the thematic areas, i.e. short term to COP24, and up to 2020

To make "global" climate action truly global – Parties need to take action to facilitate expansion of the MPGCA transport initiatives to key low and middle income countries. Otherwise the current imbalance in climate action activities with a disproportionate share of activities focused on developed countries, will remain.

[14] Paris Process on Mobility and Climate. 2016. COP22 Declaration on Accelerated Action on Adaptation in Transport. http://www.ppmc-transport.org/wp-content/uploads/2016/11/Adaptation-Declaration-Final.pdf

The transport initiatives have much to offer the upcoming 2018 Facilitative Dialogue, the development of second generation NDCs and Long Term Emission Reduction Strategies. They cover all modes of transport and collectively the 21 Transport Initiatives represent well over 100 different possible actions that can put the transport sector on a pathway towards decarbonization and increased resilience. The ITF is helping mobilize transport ministers and link key transport and climate change messages

F. Non-state actor expectations and key messages for Parties

In conclusion, the following are ten key expectations and messages from the MPGCA Transport Initiatives to the Parties:

1. Growing emissions from transport **are a major threat towards realizing the "well below 2 degrees Celsius' scenario"** – cost effective solutions are available and have been tested at scale.
2. Parties need **to take advantage of the knowledge/experience and resources available** through the Transport Initiatives on decarbonisation and adaptation.
3. The **practical experience, knowledge and tools of the Transport initiatives** can make a major contribution to reducing the cost and accelerating transport emissions reduction and strengthening resilience. Parties need to engage in a more meaningful way with the sector to successfully develop and deliver their NDC´s and Long Term Emission Reduction Strategies. There is also a need for greater involvement of relevant Ministries (e.g. Transport, Energy and Urban Planning). This may require formal dedicated thematic Technical Workshops (outside of the COP period) to support delivery of decarbonisation and resilience strategies.
4. Many of the Transport Initiatives have global relevance and hence **massive potential for scaling up**.
5. Parties need to ensure that Transport related climate **action is not limited to technological actions**. The current focus on IMPROVE (fuels, vehicles, modal optimisation) alone will not deliver climate objectives efficiently without actions on -AVOID (urban planning, travel demand management) and SHIFT (promote public transport, walking and cycling) is also needed.
6. Parties need to pay significantly more attention to growing **freight transport greenhouse gas emissions,** which is on of the fastest growing sub-sectors.
7. Action on low carbon transport also has **very significant sustainable development co-benefits** e.g. air quality, social equity, health etc.
8. **Coherent fiscal frameworks, public funding and non-financial incentives** are required for sustainable, low carbon transport – which will bring significant returns.
9. Parties need to recognise that transport systems are vulnerable to the effects of climate change – the large stock of existing **transport infrastructure needs to be adapted** to increase its resilience.
10. Parties need to take action to **ensure the MPGCA has a real global coverage and impact** – especially, to help expansion in counties where the local conditions are more difficult for initiating non- State action.

Annex I: Profiles of MPGCA Transport Initiatives

1. *Airport Carbon Accreditation*

Airport Carbon Accreditation:
Reducing carbon emissions & increasing airport sustainability

Objective

Airport Carbon Accreditation was developed and launched by Airports Council International (ACI)-Europe in 2009. As of late 2014, Airport Carbon Accreditation had expanded world-wide to all ACI regions. Today it is the only global carbon management standard for airports.

It aims to reduce carbon emissions and achieve best practice in carbon management from operations fully within the control of the airports, with the ultimate target of becoming carbon neutral.

Commitment

The initiative commits to increase airport accreditations in all regions, and encourage already accredited airports to continuously enhance their carbon management and thus progress towards the higher levels of accreditation.
In June 2017, the initial commitment for the European region - 50 carbon neutral airports in Europe by 2030 – has been upgraded. The target is now to achieve 100 carbon neutral airports in Europe by 2030.

Partners and Signatories

As of September 2017, 34 airports worldwide are carbon neutral, including 27 in Europe, 5 in Asia-Pacific, 1 in North America and 1 in Africa. The Administrator of the program is WSP.

Activities of the Initiative

Outreach and coalition building:

- Since COP22, new participants have joined the program and progress towards the higher levels of accreditation has been recorded in all world regions. As of September 2017, 192 airports worldwide are accredited, representing over 38% of world air passenger traffic.
- The initiative's plan for 2017/2018 will continue to progress towards additional carbon neutral airports with new accreditations through continued cooperation with UNFCCC and the SLoCaT Partnership.

Figure 3. ACA Accredited airports over time (2010-2017)

Figure 4. Distribution of ACA accredited airports

Capacity building:

- A series of dedicated workshops are being delivered to the ACI regions, meetings are taking place, while the Guidance Document (i.e., the manual that explains the step by step process and requirements of accreditation) was revised.
- Exchange of best practices in carbon management is continuously taking place between accredited airports, in particular through a dedicated airport working group.

Knowledge development:

- The Airport Carbon and Emissions Reporting Tool (ACERT), provided by ACI World in collaboration with Zurich Airport, has been upgraded to allow for an easier input of the required carbon footprint information into the *Airport Carbon Accreditation* online application tool. ACERT is available at no cost to airports and can in particular help small airports become *Airport Carbon Accredited*.

Monitoring and reporting:

- Airport Carbon Accreditation continues to report on the program's developments and the carbon performance of accredited airports in its Annual Reports.

2. Aviation's Climate Action Takes Off

Aviation's Climate Action Takes Off: **Collaborative climate action across the air transport sector**
Objective The Aviation's Climate Action Takes Off initiative aims to control international aviation CO_2 emissions through a basket of aviation CO_2-reduction measures, including a goal of carbon-neutral growth through a global market-based mechanism.
Commitment The initiative commits to support short-, medium- and long-term goals to cut emissions from aviation. It

showcases action by industry and states in addressing CO_2 emissions from international aviation. Measures include supporting developing new, more efficient aircraft technology and sustainable alternative fuels while promoting and deploying operational improvements to reduce CO_2 emissions from aircraft already in service. It calls for better use of infrastructure, especially in air traffic management.

Through the Air Transport Action Group (ATAG), the aviation industry also provided strong support to the development of International Civil Aviation Organization (ICAO)'s Carbon Offsetting and Reduction Scheme for International Aviation (CORSIA), a landmark agreement, adopted at the last ICAO Assembly in October 2016, making the aviation industry the first sector to adopt a global market-based measure to address climate change.[15]

Governments agreed the world's first global market mechanism for any single sector – the ICAO Carbon Offsetting and Reduction Scheme for International Aviation (CORSIA) will start to offset international aviation emissions from 2020. The initiative is now focusing on capacity building for governments and industry to implement the scheme.

Partners and Signatories

ICAO represents 191 member states and ATAG represents 29 private sector companies or associations from the aviation industry.

Activities of the Initiative

Outreach and coalition building:

- Governments agreed the world's first global market mechanism for any single sector – the ICAO Carbon Offsetting and Reduction Scheme for International Aviation (CORSIA) will offset over 80% of international aviation emissions growth from 2020. Focus now on capacity building for governments and industry to implement the scheme.
- Organized two series (2015 and 2016) of five Global Aviation Dialogues ICAO/GLADS on market-based measures to address climate change with participations of states, civil society and aviation stakeholders in Africa, Middle East, Europe and North Atlantic, Asia-Pacific and the Americas
- Organized ATAG roundtables for industry in seven cities worldwide.
- Organized Sustainable Aviation Forum by ATAG
- Held ICAO High-level Meeting and a series of additional informal negotiations where a global market-based mechanism was further refined and agreed at the 39th ICAO Assembly in October 2016. The historical market-based measure agreement to address international aviation CO_2 will complement the ambition under the Paris agreement NDCs.

Knowledge development:

- ICAO has worked with governments, industry and civil society to deliver the world's first CO_2 Standard for Aircraft in February 2016. This is the very first "global design Standard" for CO_2 emissions for any sector, and it was realized after six years of intensive work by many of the best experts in the world. The Standard guarantees up to a 10% fuel efficiency gain for each new type developed from 2020, relative to the average of current production aircraft types. It also addresses new deliveries of those aircraft that are already in-production from 2023. If they have not

[15] http://www.icao.int/environmental-protection/Pages/market-based-measures.aspx

complied with the standard by 2028, they cannot be produced anymore. For context, approximately 40% of current production airplane type designs will need to be improved to meet the Standard.

3. *below50*

below50: **Growing the global market for the world's most sustainable fuels**
Objective below50 is a global collaboration that brings together the entire value-chain for sustainable fuels – that is, fuels that produce at least 50% less CO_2 emissions than conventional fossil fuels. below50 aims to create a critical mass of players (developers, users and investors) through the below50 campaign to grow the global market for the world's most sustainable fuels.
Commitment The initiative commits to reduce CO_2 emissions by replacing 10% of global transportation fossil fuel use with low-carbon transport fuels by 2030 and 27% by 2050, which is equivalent to 2.1 Gt CO_2 avoided per year.
Partners and Signatories The core partners include the World Business Council for Sustainable Development (WBCSD), Sustainable Energy for All, and Roundtable on Sustainable Biomaterials. 16 partners and 19 companies have joined the initiative as of November 2017.
Relevance to advance the Paris Agreement goals Growing the market for low carbon fuels in transport directly reduces the growth in greenhouse gas emissions from transport operations.
Activities of the Initiative *Outreach and coalition building:* • Initiated partnerships with the Brazilian Business Council for Sustainable Development (CEBDS), the Biotechnology Innovation Organisation (BIO) and the Queensland Renewable Fuels Association (QRFA) to establish three new below50 hubs (in South America, North America and Australia respectively). These hubs will allow below50 activity to be focused on overcoming region- specific barriers, recognizing the global differences in market maturity. • A below50 policy document was communicated by companies to policy makers on a united view on the European Renewable Energy Directive (REDII). The document included a call for REDII to be focused on not only second generation biofuels. It acknowledged the important role that conventional biofuels, with high GHG reduction potential, can play in meeting decarbonization and renewables targets for the transport sector. • Introducing regional below50 hubs and diversifying the membership structure has allowed below50 to better reflect its marketplace. This in turn has led to a significant uptake in engagement with a 60% increase in membership. below50 has also attracted an official partnership with the We Mean Business coalition to further expand the reach and uptake of below50's work on low carbon fuels. • The aim beyond 2017 is to expand the number of regional hubs to directly address the barriers in additional markets. Countries of immediate interest include China and the Philippines.

Capacity building:

- In July 2017, below50 partnered with BIO to organize a below50 event at BIO World Congress on Industrial Biotechnology (#BIOWC17) in Montreal. Industry leaders, government officials and academic researchers met to share the latest advances across the spectrum of industrial biotechnology including renewable chemicals, synthetic biology, food ingredients and advanced biofuels.
- below50 will also look to share the insights gained in regional campaigns across the global platform, continuing to build the market drivers needed to replace 10% of global transportation fossil fuel use with low-carbon transport fuels by 2030.

Policy-making and implementation:

- In 2017 below50 has continued to work on combatting market and policy barriers to scaling up production and use of low carbon fuels. Particular focus has been placed on improving the market driven side, making the most of below50's unique global platform of stakeholders across the entire value chain of sustainable transport fuels.
- In Brazil, where challenges exist around a lack of biofuel to meet demand, below50 members (with the assistance of CEBDS) submitted a letter of support for the RenovaBio program to the Brazilian government. The RenovaBio program is designed to incentivize investment by enabling biofuels producers to issue certified emissions reductions certificates.

4. C40 Clean Bus Declaration

C40 Clean Bus Declaration: **Raising ambition and catalyzing markets**
Objective The C40 Clean Bus Declaration is led by the C40 Cities Climate Leadership Group (C40). It is aimed at influencing manufacturers, public transport operators, leasing companies, multilateral development banks and other funding agencies to support city ambitions to decarbonize urban mass transport.
Commitment The cities that are part of the initiative will incorporate over 160,000 buses in their fleet by 2020, of which they have committed to switching 42,000 buses to low emission. GHG savings will be almost 900,000 tons per year, with a potential overall savings of 2.8 m tons each year if the cities managed to switch their entire bus fleet.
Partners and Signatories 26 cities around the world have signed up to the Clean Bus Declaration so far to demonstrate the strong global demand for clean buses.
Activities of the Initiative *Outreach and coalition building:* • C40 has developed the Fossil Fuel Free Streets Declaration which is endorsed by 12 mayors from Auckland, Paris, London, Los Angeles, Copenhagen, Vancouver, Mexico City, Barcelona, Quito, Seattle, Milan, and Cape Town. These cities pledge to transition to fossil-fuel-free streets by procuring, with their partners, only zero-emission buses from 2025; and ensuring a major area of their cities is zero emission by 2030. The Declaration lays the foundation of C40's work on low emisison vehicles, mobility management, bus rapid transit, walking and cycling networks. • In 2017, C40 worked with ICCT to hold an event at the CCAC annual workshop where four of the

world's largest bus and engine manufacturers committed to the Global Industry partnership for soot free clean urban buses. This involved the manufacturers announcing their commitment to provide clean soot free bus technologies in 20 cities where previously this technology has not been available.[16]

Capacity building:

- In 2017, C40 hosted a Clean Bus Finance Academy (with Citibank) to address barriers to electric bus adoption and speed delivery against the commitments in the declaration. Senior transport and finance stakeholders attended from 12 global cities. The three-day academy worked with senior transport and finance officials from each city to address the financial barriers to take up of EV buses.
- C40 is currently planning a Clean Bus Study Tour for November 2017, to take non-European cities on a tour of EV bus technology on the road across four leading European cities.
- C40 is also organizing a second Clean Bus Finance Academy in 2018.

5. *Cycling Delivers on the Global Goals*

Cycling Delivers on the Global Goals
Objective Show the importance of cycling to achieve the new UN Sustainable Development Goals (SDGs), with special attention to climate action.
Commitment The commitment showcases the ambitions of cities to increase the modal share of cycling worldwide and to double cycling in Europe by 2020. It aims to mobilize support of members from the World Cycling Alliance (WCA) and the European Cyclist Federation (ECF) enable local, national and international governments and institutions to scale up action on cycling.
Partners and Signatories The commitment is supported by ECF and WCA, representing over 130 civil society organizations worldwide.
Relevance to advance the Paris Agreement goals The initiative advances the Paris Agreement goals by focusing on mitigation (shifting modal share in cities towards cycling) and by providing a means to showcase these cities that commit to increasing their modal share of cycling.
Activities of the Initiative *Outreach and coalition building:* • Continue to advocate for a World Bicycle Day recognized by the UN as a means of outreach on the importance of cycling in sustainable mobility. • Continue to organize Velo-city, the annual global cycling summit, to provide a space for coalition and partnerships to form. • ECF and WCA work on enhancing the international, global collaboration of Civil Society Organizations and their partnerships with governments, governmental organizations and the

[16] Press Release: Bus Manufacturers Commit to Bring Cleaner 'Soot-Free' Buses to 20 Megacities http://bit.ly/2kIsHoJ

private sector.
- ECF are WCA are preparing the next steps in the development of the WCA: the founding of the global legal entity WCA in 2018.

Capacity building:
- ECF, with the Dutch cities Arnhem and Nijmegen, has organized the 2017 edition of the Velo-city conferences series, the global cycling summit: the premiere place for exchanging knowledge and experience on cycling.
- The next Velo-city conference will be held in Brazil in 2018.

Policy-making and implementation:
- ECF, together with other stakeholders in the cycling sector (including the bicycle industry), has developed a draft EU Cycling Strategy document for the European Commission.

Monitoring and reporting:
- Monitoring the list of cities which have adopted modal share targets.

6. *EcoMobility Alliance*

EcoMobility Alliance
Ambitious cities committed to sustainable transport

Objective
The EcoMobility Alliance is a network of cities committed to building a sustainable transport future ensuring low-carbon, people-centered and socially inclusive mobility options.

Commitment
Through the EcoMobility Alliance, ICLEI brings together cities committed to advancing urban mobility to conceptualize, design and implement people and climate friendly urban mobility options that encourage innovation and entrepreneurship.

Though several activities, the EcoMobility Alliance reinforces local governments' commitments to transforming their transportation systems and mobility patterns, aiming to reduce automobile dependency and become more sustainable, low-carbon and people-centered.

Activities of the Initiative
Outreach and coalition building:
- Through various projects such as the EcoMobility Alliance, EcoMobility World Festival, and EcoMobility Alliance SHIFT, ICLEI brings cities together to have a collective and mutual learning and translate learning into practice by implementing policies, projects and investments to transform the current mobility patterns.
- The Alliance has also brought forward the voice of Alliance Cities and their mobility concerns at various international events such as the International Transport Forums, Metropolitan Solutions, the UN Climate Talks in Bonn, COP22, and the United Nations Conference on Housing and Sustainable Urban Development (Habitat III).
- Needs assessment activities will take place either with selected cities individually or in a collective workshop that provides the opportunity to network within the EcoMobility Alliance. The needs assessment will begin a first stage of awareness raising for cities thorough a collective and

conscious identification of actions that other cities are undertaking to advance urban mobility.

Capacity building:

- ICLEI empowers EcoMobility Alliance cities by providing technical expertise and the opportunity to share their experiences and participate in knowledge exchange with other Alliance cities from around the world.
- The EcoMobility World Congress 2017 was held in the city of Kaohsiung to deliberate how sustainable mobility can be livable, shared and intelligent, mirroring what Kaohsiung is demonstrating through the Festival. City mayors from all over the world have shared their experience and commitment to implementing EcoMobility Alliance in their respective cities during a dedicated roundtable allowing high level discussions.
- The Alliance secretariat has conducted capacity building activities together with Alliance partners in Chinese Taipei, Germany and Ecuador. The main target groups for these events were policy-makers from local and national governments. EcoMobility Alliance workshops run by Alliance Cities provide the opportunity for peer-to-peer exchanges focusing on key issues of common concern and facilitate sharing of expertise among Alliance Cities, Alliance Partners, and experts.

Policy-making and implementation:

- During the EcoMobility World Festival 2017, the City of Kaohsiung transformed the streets of the historical Hamasen neighborhood into a dedicated space for ecomobile modes of transport such as walking, cycling, and various forms of public transport including shared and light electric vehicles. Kaohsiung was the second city in Asia to showcase autonomous shuttle buses in a real urban environment and invite the public for test-rides. The Kaohsiung Strategies for the Future of Urban Mobility was an outcome of the EcoMobility World Festival and Congress 2017 and provide a guide for city leaders to shape the future of urban transport in their communities, and ensure safe, clean, affordable, accessible, environmentally-friendly, intelligent and connected mobility options and transport systems for their residents.[17]
- The EcoMobility Alliance will work with selected cities to have an in depth understanding of their current mobility goals and review the current vision that they have for urban mobility. Through this needs assessment exercise, cities will also evaluate the ecomobility related projects that they intend to implement.

Monitoring and reporting:

- The EcoMobility Alliance will support cities to implement a performance measurement system, SHIFT, that ICLEI has developed to track urban mobility.

7. EV100

EV100
Accelerate the transition to electro-mobility

Objective

To accelerate the transition to electro-mobility by leveraging the role corporate demand can play in driving EV uptake and roll-out of charging infrastructure.

[17] http://www.ecomobilityfestival.org/declaration/

Commitment

Companies joining EV100 make an individual commitment to transitioning their fleets to electric vehicles and/or installing charging infrastructure at their relevant premises by 2030.

They can chose to make the commitment in one or more of four influence areas: directly controlled fleets (owned/leased), service provider contracts, workplace charging, and customer charging.

Partners and Signatories

EV100 is supported by We Mean Business, Climate Works Foundation and Heising Simons Foundation.

EV100 launched in September with ten members including Baidu, Deutsche Post DHL Group, Heathrow Airport, HP Inc, IKEA Group, LeasePlan, Metro AG, PG&E Corporation, Unilever and Vattenfall. Further members will be invited to join continuously (for latest list, see www.theclimategroup.org/ev100-members).

Relevance to advance the Paris Agreement goals

- Commitment actions will lead to direct transport emissions reductions as internal combustion engine vehicles are replaced by electric vehicles.
- The collective corporate action will also drive the transition to electric-mobility in the broader market: The forward-looking demand signal from companies drives market supply and gives political support to legislators.
- Corporate action also positions electro-mobility as a new mainstream solution to the general public, and makes it easier for staff and customers to make a personal transition.

Activities of the Initiative

Outreach and coalition building:

- EV100 will build a broad coalition of major global companies all making the public commitment as outlined above. First joiners was announced in September 2017 and further members will continue to join as the campaign matures.

Capacity building:

- EV100 members will be supported by regular webinars and other peer learning opportunities to share experiences and benefit from existing knowledge as the work to achieve their commitments.

Knowledge development:

- A key aspect of the campaign's development is the public profiling of members. Through the example of participating companies, EV100 will demonstrate the growing business case for electro-mobility to a broad range of stakeholders including other businesses, policy makers and the general public.

Policy-making and implementations:

- EV100 will build a unified voice from businesses on EV demand. Working closely with policy leaders, for example as a partner of the CEM EVI's EV30@30 initiative, it will develop active dialogue between business and government about the framework conditions required to drive EV uptake.

Monitoring and reporting:

- EV100 will monitor its members' progress in an annual reporting cycle that will hold individual companies to account as well as allow the campaign to present an overarching picture of progress on corporate EV leadership and the related opportunities and challenges.

8. Global Fuel Economy Initiative

Global Fuel Economy Initiative:
100 Countries 50 by 50

Objective

The Global Fuel Economy Initiative (GFEI) assists governments and transport stakeholders to improve vehicle fuel economy and reduce emissions of carbon dioxide.

Commitment

GFEI aims to double the average fuel economy of new light-duty vehicles globally by 2030, and all vehicles by 2050.

- At COP21, GFEI launched '100 for 50 by 50' to encourage new countries to commit to GFEI's fuel economy improvement goals. 40 new countries joined, making 65 countries that GFEI provides Capacity building support. In addition, GFEI works with major markets through the G20.
- At COP22, GFEI announced a new commitment to regional Capacity building, including a major African fuel economy conference.
- At COP23, GFEI is setting out the importance of improving the fuel economy of Heavy Duty Vehicles, as well as Electric Vehicles.

Partners and Signatories

There are six GFEI partner organizations (FIA Foundation, UN Environment, the International Energy Agency (EA), International Council on Clean Transportation (ICCT), ITF, and University of California, Davis), regional implementing partners, and the 65 countries where GFEI provides practical support.

Relevance to advance the Paris Agreement goals

Since COP22, GFEI has continued to support countries to develop and implement fuel economy policies to reduce CO_2 emissions from vehicles.

Activities of the Initiative

Outreach and coalition building:

- Sheila Watson led high profile conference activities with partners at the Transportation Research Board (Washington), the Sustainable Energy for All Forum (New York) and the International Transport Forum (Leipzig). Planning continued engagement at global events, including the next High Level Political Forum in 2018.

Capacity building:

- GFEI has so far launched in Colombia, Zimbabwe, Togo, Mali, and Malawi, and held further workshops in Egypt, the Philippines, and at an ASEAN fuel economy Forum in Bangkok.
- In 2017, GFEI's global training event in Paris was led by the IEA, and is being supplemented by regional events in Asia, Africa and Latin America. GFEI will continue this approach into 2018, with a focus on integrating electric vehicles and heavy-duty vehicles (HDV) policies alongside light-duty vehicles (LDV).

Knowledge development:

- Two new Working Papers were launched, which provide new insights through tracking fuel

economy over a decade (2005-2015), and modelling scenarios for growth in electric vehicles by 2030.
- GFEI's partner organizations, the ICCT and the IEA have published new work on HDVs and EVs, and GFEI has added focused summaries to its website.
- Future research includes looking at trends on the size of vehicles.

Policy-making and implementations:
- GFEI has developed fuel economy policy proposals for Egypt and South Africa and engaged with proposals in the Philippines, and Australia. Through the ICCT, it has also engaged with the G20 Transport Task Force.

Monitoring and reporting:
- GFEI provides regular updates on progress on its website.
- GFEI Working Paper 15 tracks fuel economy progress globally.
- GFEI's partner, the ICCT, has published a report reviewing fuel economy trends.

9. *Global Green Freight Action Plan*

Global Green Freight Action Plan:
Reducing the climate and health impacts of goods transport

Objective

The Global Green Freight Action Plan (GGFAP) aims to enhance the environmental and energy efficiency of goods movement in ways that significantly reduce the climate, health, energy, and cost impacts of freight transport around the world. The three main objectives are:

1. To align and enhance existing green freight programs;
2. To develop and support new green freight programs globally; and
3. To incorporate black carbon reductions into green freight programs.

Commitment

GGFAP calls on governments, private sector, civil society, and other actors to work in concert to align and enhance existing green freight programs, develop and support new green freight programs, and to incorporate black carbon reductions into green freight programs.

Partners and Signatories

The initiative is supported by 24 countries and 33 non-state actors including NGOs, UN organizations, freight associations, institutes, and private companies.

Relevance to advance the Paris Agreement goals

Green freight programs can help the freight sector reduce its contribution to climate change and air pollution by encouraging the adoption of more efficient and cleaner technologies and practices. They can help companies retrofit existing vehicles with technologies and measures to reduce fuel consumption (such as idle reduction technologies, aerodynamic retrofits, and rolling resistance improvements) as well as exhaust emission retrofits such as diesel particulate filters to reduce black carbon. These programs also help expedite the acquisition of new, more fuel efficient vehicles, all of which reduce greenhouse gas emissions from existing vehicles. [18]

[18] Every liter of diesel fuel consumed creates 2.7 kg of CO_2, a major greenhouse gas. Considering that freight movement uses approximately 6.7 billion barrels of oil per year, the contributions of the freight industry to climate change are substantial. In

Activities of the Initiative

Outreach and Coalition Building:

- The initiative continuously updates its official website www.globalgreenfreight.org and has circulated regular newsletters containing news and updates on green freight.[19]

Capacity building:

- The initiative has conducted four regional workshops for Africa, Asia, Europe and Latin America on green freight programs that aimed to capacitate stakeholders, determine areas of regional collaboration, and support commitments under the GGFAP.

Knowledge development:

The following resources have been completed by the initiative:

- Freight assessment blueprint: practical guide for evaluating freight transportation in support of national green freight programs20
- Global Logistics Emissions Council (GLEC) Framework for Logistics Emissions Methodologies: one universal and transparent way of calculating logistics emissions across the global multi-modal supply chain.
- Freight Assessment for Brazil and Mexico
- Vietnam Green Freight Paper
- Black Carbon Methodology for the Logistics Sector as supplement to the GLEC Framework

Other relevant resources disseminated by the Initiative includes:[21]

- EPA SmartWay Training: capacity-building training to design, build and implement a Green Freight Program
- EPA Technology Verification Training: capacity-building training to design, build and implement a Tech Verification Program

Policy-making and implementation:

- The first Green Freight Strategy in Africa has been launched under the Northern Corridor Transit and Transport Coordination Authority at the 42nd Meeting of the Executive Committee of the Northern Corridor on 16 January 2017.[22]

Monitoring and reporting

- A steering group made up of volunteer partners of the Climate and Clean Air Coalition (Canada, United States, Clean Air Asia, International Council on Clean Transportation, Smart Freight Centre) tracks actions and reports progress annually.
- Indicators include: number of additional actions, number of additional stakeholders engaged and countries committing to set up green freight programs, total amount of additional funding

addition to greenhouse gas emissions, the combustion of diesel fuel also generates black carbon, a potent short-lived climate pollutant and a component of particulate matter that comes from the incomplete combustion of fossil fuels, biofuels, and biomass. While black carbon emissions are easily controlled by diesel particulate filters (DPFs), many countries' vehicle emissions standards do not yet require DPFs.

[19] The last newsletter was issued in May 2017 and can be accessed here: http://bit.ly/2kIeubA

[20] http://bit.ly/2i5f6af

[21] Resources are posted on the initiative website at http://globalgreenfreight.org/resources

[22] http://bit.ly/2xBr16L

mobilized.

10. Global Sidewalk Challenge

Global Sidewalk Challenge:
Valuing and delivering more walkable communities

Objective

The Global Sidewalk Challenge raises the voice and profile for walking internationally and sets a challenge to governments, private businesses and NGO's to collaborate and invest in walking infrastructure, especially dedicated, safe and barrier free sidewalks at transport hubs, to benefit the people who walk most by focusing on the places most walked in order to reduce GHG emissions, improve the efficiency of public transport and deliver better public health.

Commitment

The Challenge seeks to catalyze action around the globe by consolidating the efforts of partner cities and organizations into a high profile campaign that brings momentum and ambition to construct, or rehabilitate, 100,000km of additional dedicated, safe, barrier free, sidewalks in the proximity of public transport hubs, the majority of which will be in low and middle income countries by 2030.

Partners and Signatories

The initiative currently receives support from seven NGOs, 12 business companies, and four universities.

Relevance to advance the Paris Agreement goals

The carbon reduction potential of walking is not extensively researched (part of the problem), but one study[23] estimates that increases in the mode share of walking in Bogota, Colombia from 20% to 25% of travel could reduce transport emissions by 6.9% at a cost of USD $ 17/tCO_2. In addition, a package of walkways, cycle-ways and bus rapid transit could reduce emissions by 25% at a cost of USD $ 30/ tonneCO_2.

Table 11. Estimated GHG reduction potential and cost per ton of transport measures

Transport Measure	GHG Reduction Potential	Cost per t CO2 ($)
BRT mode share increases from 0% to 5%	3.9	66
BRT mode share increases from 0% to 10%	8.6	59
Walking share increases from 20% to 25%	**6.9**	**17**
Bicycle share increases from 0% to 5%	3.9	15
Bicycle mode share increases from 1% to 10%	8.4	14
Package (BRT, pedestrian upgrades, bikeways)	25.1	30
BRT= Bus Rapid Transit, GHG = greenhouse gas, tCO2 = ton per carbon dioxide equivalent.		

[23] Wright L, Fulton L. Climate change mitigation and transport in developing nations. Transport Reviews, 2005, 25(6): 691–717

Sources Ribero et al, 2007, Transport and it's Infrastructure in Climate Change 2007, contribution of Working Group III to the Fourth Assessment Report of the Intergovernmental Panel on Climate Change. B Metz et al, eds. Cambridge University Press, Cambridge and New York. L Wright and L Futon 2005, Climate Change Mitigation and Transport in Developing Nations. Transport Reviews 25(6) pp 671 – 717.

Walking in its own right or packaged with public transport systems can enhance the carbon reduction potential of both modes and of the transport system as a whole.

Activities of the Initiative

Outreach and coalition building:

- Reach out to potential Sidewalk Challenge partners and recruit geographical leaders for city investment coordination and support;
- Reach out to at least 50 global, regional and national urban networks to encourage their members to develop or rehabilitate high quality sidewalks;
- Represent walking and contribute to global forums and agendas to ensure walking is appropriately considered and accommodated especially for sustainable active transport and as an essential element of resilient cities and communities;
- Prepare fact sheets and support campaigns on the benefits of walking and the needs of pedestrians.

Capacity building:

- Conduct expert trainings, workshops and walkshops on walking and pedestrian infrastructure with professional practitioners, community advocates and political decision makers;
- Provide technical assistance, including community engagement methods, to countries and cities to establish more investment in walking and better provision of infrastructure and facilities.

Knowledge development:

- Adopt and evolve a Global Walking Map tool to identify popular transit stops, the crowd sourcing of sidewalk availability and quality data, and levels of street connectivity so that sidewalk investment can be targeted to maximum benefit, monitored and evaluated;
- Curate a comprehensive and accessible on-line library of walking resources and best practice;
- Create a Walkable Cities Index to demonstrate the impact of walking investment and generate engagement from cities large and small

Policy-making and implementation:

- Call on all UNFCCC parties and non-state actors to include walking in their climate action plans, especially the NDCs and the Long Term Emission Reduction Plans;
- Work with multilateral development banks and bilateral development agencies to include sidewalk construction in their annual urban transport portfolio;
- Support the development of guidance for legislation and government walking policies and plans.

11. Global Strategy for Cleaner Fuels and Vehicles

Global Strategy for Cleaner Fuels and Vehicles

Objective

The Initiative's objective is to virtually eliminate fine particle and black carbon emissions from new and existing heavy-duty diesel vehicles and engines through the introduction of low sulfur fuels, and vehicle

emission standards by 2030.

The goal of the Global Strategy is for most countries to achieve 50-ppm sulfur fuels by 2020, all countries to reach this level by 2025 and most countries to reach 10-ppm fuels by 2030. The environmental and health benefits of cleaner fuels and vehicles are substantial, eliminating an expected 14 million metric tons of PM cumulatively through 2050 and up to 500,000 fewer premature deaths a year in 2050.

Commitment

In 2016, the Heavy-duty Diesel Vehicles and Engines Initiative of the Climate and Clean Air Coalition released "A Global Strategy to Introduce Low-sulfur Fuels and Cleaner Diesel Vehicles" (Global Strategy), the first clear and pragmatic roadmap for transitioning all countries to low sulfur and ultra-low sulfur diesel and advanced vehicle emission standards by 2030. At the CCAC December 2016 High Level Assembly, 36 countries recognized and fully endorsed the Global Sulfur Strategy's approach and targets:

- Endorse the Coalition's Global Strategy to Introduce Low Sulphur Fuels and Cleaner Diesel Vehicles;
- Encourage Coalition partners and other relevant stakeholders to implement its recommendations, including by: adopting, maintaining, and enforcing world-class diesel fuel quality and tailpipe emissions standards for on road light and heavy-duty vehicles in our markets.
- Resolve to develop national implementation plans outlining timelines for the nationwide introduction of such standards, if such standards are not already in place.

Partners and Signatories

38 Countries: Australia, Bangladesh, Benin, Canada, Central African Republic, Chad, Chile, Colombia, Cote d'Ivoire, Denmark, Dominican Republic, Finland, Germany, Guinea, Ireland, Italy, Japan, Kenya, Luxembourg, Mali, Mexico, Moldova, Morocco, Netherlands, New Zealand, Nigeria, Norway, Paraguay, Peru, Philippines, Poland, Rwanda, Sweden, Switzerland, Togo, United Kingdom, United States, Uruguay

Relevance to advance the Paris Agreement goals

Pairing low sulfur diesel fuel with the right emission control technologies leads to reductions in black carbon[24] as well as other climate pollutants (Bond et al., 2013). Euro VI-equivalent emissions standards that require particulate filters (i.e. filter-forcing standards) are the most effective option for controlling diesel black carbon, reducing PM2.5 emissions by up to 99% and black carbon by over 99%. Euro 4/IV standards also lead to reductions in black carbon emissions of up to 90% by forcing improvements in combustion technology; but, in general, vehicles meeting Euro 4/IV equivalent standards are not equipped with particulate filters and so deliver lower emission reductions than engines meeting a filter-forcing standard. An additional benefit of the introduction of more modern vehicles through the application of filter-forcing standards, with cleaner and more efficient engine technologies, is that these modern vehicles are generally more fuel-efficient (because of the parallel implementation of fuel economy standards) and thus the CO2 emissions of these vehicles are often also reduced.

A move to more stringent standards for diesel fuel and vehicles would reduce cumulative emissions of

[24] One component in particular of PM2.5, black carbon, is a potent climate forcer that absorbs sunlight and releases heat, causing warming. Because black carbon only has a life in the atmosphere of less than a week, it is a so-called short-lived climate pollutant. Reducing emissions of short-lived climate pollutants like black carbon has a direct and immediate impact on climate change, and can therefore be a valuable complement to reducing CO_2 emissions as a tool to limit climate change.

diesel black carbon by an estimated 7.1 million metric tons through the year 2050.

When the climate impact is assessed over a 100-year time horizon, these black carbon reductions amount to the equivalent of 6.0 billion metric tons of CO2; over a 20-year time horizon, the CO2-equivalent is 23 billion metric tons. Accounting for concurrent reductions in other short-lived climate pollutants, the implementation of stringent standards would save the equivalent of 5.5 billion metric tons of CO2 over a 100-year time horizon, or 22 billion metric tons of CO2-equivalent over a 20-year time horizon. Desulfurization also requires additional energy expenditures at the refinery, increasing refinery emissions. In the absence of further decarbonization of refinery energy supply, we estimate that cumulative refinery emissions associated with this global desulfurization could be up to 1 billion metric tons of CO2. This leaves a net benefit on a 100-year time horizon of at least 4.5 billion metric tons of CO2 equivalent.

Activities of the Initiative

Outreach and coalition building:

- Ministers and High-level representatives of Climate and Clean Air Coalition (CCAC) countries adopted and issued a communique reaffirming their commitment to improve air quality and slow the increasing rate of climate change by taking action to reduce emissions of short-lived climate pollutants such as black carbon at the Coalition's High Level Assembly in Marrakech, Morocco. Recognizing that motor vehicles, especially diesel vehicles, are major contributors to air pollution and near term climate change, they endorsed the Global Strategy to Introduce Low-Sulfur Fuels and Cleaner Diesel Vehicles (the "Global Strategy"), and encouraged CCAC partners and other relevant stakeholders to implement its recommendations.[25] The CCAC continues to engage with partners on this by providing updates through the website and also requesting countries to report/share progress on their commitments.
- The Heavy Duty Diesel Initiative (HDDI) implements the Global Strategy by building global, regional and sub-regional networks dedicated to developing and implementing standards and plans to achieve ultra-low and low sulfur levels in fuels coupled with advanced vehicle emissions standards. The focus is on Latin America, Asia, Africa and East Europe and 35 countries supported desulfurization.

Capacity building:

- The HDDI implements the Global Strategy through capacity-building events (including training events) at the sub-regional and national levels. Our focus is on Latin America, Asia, Africa and East Europe and we have supported over 35 countries to date; in 2017-2019 our activities will focus on Benin, Ethiopia, Togo, Mali, Cote d'Ivoire, Nigeria, Paraguay, Dominican Republic, Mongolia, Moldova, Indonesia, China, East African countries, Argentina, Panama, Southern Africa, Georgia.

Knowledge development:

- Information and updates on the global strategy are being shared in the website and also through side meetings to the CCAC Governance meetings two times per year.

[25] http://ccacoalition.org/en/news/ccac-high-level-assembly-endorses-global-strategy-low-sulfur-fuels-and-cleaner-diesel-vehicles

Policy-making and implementation:

The initiative works directly with sub-regional and national partners through cooperation agreements to develop and implement clean fuel and vehicle emissions standards. Recent examples include:

- West African countries commit to low sulfur fuels from July 2017 - Nigeria just published their new standard, approved by the Minister of Trade. This proposal would assist the sub-region in implementing these new standards;
- Southern African countries (Mozambique, Malawi and Zimbabwe) to switch to low Sulphur diesel fuels from June 2017; Mozambique has published its new standards. This proposal would assist the sub-region in implementing new standards;
- China implements lower sulfur fuels in 2017 and adopts filter-forcing standards for new trucks and buses starting in 2019. This proposal would assist in implementing these new standards;
- Mexico implements lower sulfur fuels in 2016 and proposes filter-forcing standards for new trucks and buses.
- Santiago, Istanbul and Mexico City committed to soot-free urban bus fleets. Montevideo recommended that 400 Euro III buses (around 3 million US$ in investment) be retrofitted with diesel particulate filters;
- The East African Northern Corridor Authority linking 6 East and Central African countries has adopted the first green freight strategy in Africa in 2016. Over 50 countries and organization pledge support to the Global Green Freight Action Plan. Mexico, Canada and the US are harmonizing their programs while Brazil, Vietnam develop theirs.
- Paraguay adopted a 50 ppm standard nationwide, December 2015.
- Uruguay reached agreement for a national Euro 4 import standard with car importers, Euro 5 when 10 ppm sulfur fuel will be more widely available nationwide; Costa Rica now proposing a move to Euro 3 (2017), Euro 4 (2018), Euro 6 (2021) vehicle emission standards.
- East African countries Burundi, Kenya, Rwanda, Tanzania and Uganda formally adopted national standards for 50 ppm sulfur in fuels as of 1 January 2015.

Monitoring and reporting

The HDDI develops new data and tools to both motivate and demonstrate progress towards deployment of soot-free diesel engines. Activities include annual reporting on global progress as well as visibility of the Global Strategy to address clean diesels worldwide.

12. ITS for Climate

ITS for Climate: **Using Intelligent Transportation Systems (ITS) to deliver big results at a small cost**
Objective ITS for Climate Initiative aims to take a stand in favor of using ITS solutions to work towards a low-carbon, resilient world and to limit global warming below the 2-degree target and contribute to adaptation to climate change in large cities and isolated territories.
Commitment The initiative commits to spread awareness about ITS, and deliver accurate information; train and develop experts; promote “cross-fertilize” to build on past successes, develop incentive programs for ITS project deployment.
Partners and Signatories

The ITS for Climate initiative is carried out by ATEC, ITS France, and TOPOS Aquitaine, who represent a few hundred members; more partners and supporters are expected to join in coming years.

Activities of the Initiative

Outreach and Capacity building:

- The initiative expects to have more partners and supporters joining in this year and will seek support across all continents, through different actions such as communication during ITS, smart cities and climate change congresses.
- The initiative has launched in 2016 a Digital Mobility Ideas Box and the results were announced at Marrakech COP22 transport day and a Hackathon (2017).

Knowledge development:

- The initiative is presently building the ITS for Climate Projects & Best Practices Database to register ITS solutions proposed or implemented to address climatic issues and is launching an international research program aimed at developing a methodology and a toolbox to precisely measure the impact of current and foreseen ITS projects and develop coordinated deployment plan of ITS Solutions specially in large cities and insulated territories.

13. Low Carbon Road and Road Transport Initiative (LC2RTI)

Low Carbon Road and Road Transport Initiative (LC2RTI):
Green roads – clean growth

Objective

The Low Carbon Road and Road Transport Initiative is led by the World Road Association (PIARC) and its objective is building strong and sustainable adaptation policies for the road network, including sensitive engineering structures and infrastructure (bridges, rural roads, etc.).

Commitment

The initiative is committed to:

- Providing guidance to road authorities in implementing sustainable national strategies addressing climate change;
- Reducing the carbon footprint of road construction, maintenance and operation through technological innovation, including ITS, and the implementation of green tendering and contracting;
- Developing road networks in line with new vehicle technologies (electric propulsion, autonomous cars, road/vehicle and vehicle/vehicle interactions, etc.);
- Enhancing intermodal cooperation.

Partners and Signatories

The initiative is supported by 121 government members of the World Road Association (PIARC).

Activities of the Initiative

Knowledge development:

- The initiative will continue the implementation of the 4-year Strategic Plan in 2016 to deliver the major outputs including the set up of three technical committees; each committee will organize two seminars in low/ middle-income countries from 2016-2019 to enhance knowledge exchange on low carbon road transport.
- The LC2RTI initiative will also update the Intelligent Transport Systems/Road Network Operation Manual, an online resource that provide guidance on the effective use of ITS in Road Network

Operations based on practical experience in many countries.

- The LC2RTI initiative will release the French and Spanish version of its International climate change adaptation framework for road infrastructure, already available on-line in English.

14. MobiliseYourCity

MobiliseYourCity:
100 cities engaged in sustainable urban mobility planning to reduce greenhouse gas emissions

Objective

To trigger sector investments and facilitate NDC implementation as well as accomplishment of SDGs through supporting local and national governments in emerging and developing countries in defining and implementing sustainable urban mobility policies and plans.

Commitment

- 100 cities engage in reducing their emissions by 50% through the development of integrated sustainable urban mobility plans
- 20 countries commit themselves to introduce sustainable urban mobility policies and/or incentive programs

Partners and Signatories

MobiliseYourCity is a multi-donor action, jointly co-financed by the European Commission's Directorate-General for International Cooperation and Development (DG DEVCO), the French Ministry of Ecological Transition and Solidarity (MTES), the French Facility for Global Environment (FFEM), and the German Federal Ministry for the Environment, Nature Conservation, Building and Nuclear Safety (BMUB). The initiative is implemented by its founding partners ADEME, AFD, CEREMA, CODATU, and GIZ.

Activities of the Initiative

Outreach and coalition building:

- 9 national governments and 28 city governments validated as beneficiary partners (covering partners in Africa, Asia, Central Europe and Latin America)
- Validation of 3 new knowledge & network partners, namely EUROMED, UCLG, and UNHABITAT

Capacity building:

- Trainings and workshops conducted in India, Morocco, Philippines, Tunisia, Peru;
- Workshops conducted along with international events, such as the European Development days in Brussels, European Transport Week, Climate Chance and the COP24.
- Beneficiary partners provided with knowledge content (training programs, methodological guides, webinars, etc.)

Knowledge development:

- Commencement of technical assistance with beneficiary partners in Cameroun, Senegal, Tunisia, Morocco and the Philippines; continuation of activities with current beneficiary partners.

Monitoring and reporting:

- Definition of the MobiliseYourCity monitoring & evaluation (M&E) framework; use of the MobiliseYourCity M&E framework;
- Publication of the MobiliseYourCity first annual report (2017) scheduled for 2/2018

15. Navigating a Changing Climate

Navigating a Changing Climate: **Think Climate to reduce emissions, strengthen resilience, and adapt waterborne transport infrastructure**
Objectives • Raise awareness by expanding our network and identifying new coalition partners and supporters; • Share knowledge and provide technical support, encourage the owners, operators and users of waterborne transport infrastructure; • Reduce greenhouse gas emissions and promote a shift to low carbon maritime and inland navigation infrastructure; • Act urgently to improve preparedness; strengthen resilience; and adapt maritime and inland navigation infrastructure • Seek integrated and sustainable solutions, with an emphasis on working with nature.
Commitment The coalition is committed to promoting a shift to low carbon inland and maritime navigation infrastructure; to building capacity and enhancing decision-making on mitigation and adaptation options; and to raising awareness of the need to act urgently to improve preparedness and strengthen the resilience of waterborne transport infrastructure, with an emphasis on Working with Nature.
Partners and Signatories Partners comprise: World Association for Waterborne Transport Infrastructure (PIANC), International Association of Ports and Harbors (IAPH), International Harbor Masters' Association (IHMA), International Maritime Pilots' Association (IMPA), International Bulk Terminals Association (IBTA), European Dredging Association (EuDA), European Sea Ports Organization (ESPO), Smart Freight Centre, the Institute of Marine Engineering, Science & Technology (IMarEST) and Inland Waterways international (IWI). The initiative has more than doubled its number of supporter organizations from 15 at the time of COP22 to 32 in 2017.
Relevance to advance the Paris Agreement goals The initiative contributes to advancing the Paris Agreement in respect of: • Implementing strategies to reduce greenhouse gas emissions • Conserving and enhancing natural greenhouse gas sinks • Cooperating to develop integrated, holistic, balanced non-market mitigation/adaptation approaches • Enhancing adaptive capacity, strengthening resilience and reducing vulnerability • Strengthening resilience • Dissemination and capacity building **Scale**: global, transferable initiative **Specific**: defined targets and milestones **Transparent**: see section on monitoring below **Results-oriented**: focused on concrete, real-world action delivering mitigation outcomes, increased resilience, reduced vulnerability via the development of sector-specific technical resources **Ownership/capacity**: driven by sector-representatives at international level
Activities of the Initiative *Outreach and coalition building:*

- 17 new Navigating a Changing Climate supporter organizations have signed up since COP22.

Capacity building:

- The initiative's Climate conference was held in Brussels in March 2017;[26]
- Climate change mitigation and adaptation was the main theme of ESPO's annual conference (2017) in Barcelona; and will be a key topic at IHMA's 2018 London conference and at IMPA's Congress in Dakar (also 2018);
- Organized two technical seminars on adaptation in Brussels and New York.

Knowledge development:

- The methodological framework for adaptation decision making is completed; PIANC Working Group 178 guidance on adaptation for ports and inland waterways is due for publication late 2017;
- ESPO EcoPorts tools (Self Diagnosis Method SDM and Port Environmental Review System PERS) have been updated to better accommodate climate change challenges;
- IHMA notes some progress on functional definitions for nautical port information, an important step to ports and ships using the same definitions, facilitating improved fuel and other efficiencies;
- To date, 10 GLEC Members committed themselves to implementing the GLEC Framework, demonstrating the demand for a harmonized carbon reduction calculation and reporting process;
- SFC is also upgrading and harmonizing the approach to terminal emissions; aligning with the ports sector; and improving the approach for inland water transport.

Monitoring and reporting:

- The Navigating a Changing Climate Action Plan was/ will be monitored and progress against actions reported in February and September 2017. An updated Action Plan is due before COP23.

16. Taxis4SmartCities

Taxis4SmartCities: **Accelerating the introduction of low emission vehicles in taxis fleets by 2020 and 2030 and promote sustainability.**
Objective Worldwide Taxis Companies are committed to accelerating the energy transition of their vehicle fleet by 2020 and 2030. *More generally, the Taxi4SmartCities coalition intends to defend a progressive and modern version of the taxi as a key actor of the Smart City.*
Commitment The original commitments remain: • Bamboo Club: 33% of new vehicles entering the fleet emit less than 60g of CO2 / km by 2020. • Oak Tree Club: 50% of new vehicles entering the fleet emit less than 60g of CO2 / km by 2020. • Sequoia Club: 50% of new vehicles entering the fleet emit less than 60g of CO2 / km by 2020 and 100% of new vehicles entering the fleet emit less than 20g of CO2 / km by 2030. Moreover, during their annual meeting in May 2017 (Berlin), members formally decided to commit on three additional issues:

[26] Conference report and other outputs available at http://navclimate.pianc.org/news/key-messages-from-navigating-a-changing-climate-conference

- Accessibility (regarding the fleet and regarding the possibility, for disabled persons, to order a taxi)
- Caring for the drivers (training)
- Service to consumers

Clear objectives on these three issues are to be defined before the end of 2017.

Partners and Signatories

Taxi 24 (Germany), Taxiphone (Suisse), Taxi London (UK), Taxis Bleus (France), Gescop (France), G7 (France) and Cabonline (Sweden & Norway). Taxis Bleus (Belgium), Taxis Verts (Belgium) and Taxi TCA (Netherlands) should join in 2018.

In 2017 Taxis4SmartCities became a formal association with status, an internal code of conduct, a clear organization and a dedicated budget. Such a transformation took some months (the general meeting took place in May 2017 and the "relaunch" is planned in September 2017.) and required members to allow a budget to the initiative.

Relevance to advance the Paris Agreement goals

*Adaptation***:** Taxis4SmartCities is to encourage cities to put in place the mandatory infrastructure (dedicated charging points, access to some restricted areas etc.) for "green taxis", as well as financing supports.

Activities of the Initiative

Outreach and coalition building:

- The new initiative aims at including to have at least one company from one country in the LAC and Asia region to in the coming years.

Knowledge development:

- The Taxis4SmartCities website is was launched in September 2017, with a new logo. This website is to provide information members' actions to abide by their commitments and also on clean transportation around the world, with a focus on the taxis sector.

Monitoring and reporting:

- The CO2 emissions that could be avoided thanks to the application of the commitments will be evaluated ex ante, using the following formula:

'NB OF VEHICLES x NB OF JOURNEYS/YEAR x AVERAGE KM PER JOURNEY x gC02/km EMISSION RATE"

Members are to define the way of monitoring on 1/ Accessibility 2/ Caring for the drivers and 3/ Service to consumers before the end of 2017.

For the coming year, Taxis4SmartCities aims at:

- Gathering new members (3 as a minimum)
- Define clear ambitions on accessibility, caring for the drivers and quality of service to consumers and way of monitoring.
- Communicate on the need, for cities, to create the appropriate infrastructure (dedicated fast charging points, dedicated lines etc.) and financing frame (special advantages for clean vehicles) so that taxis can move faster towards sustainability.

17. *Transformative Urban Mobility Initiative*

Transformative Urban Mobility Initiative (TUMI)

Objective

The objective of the TUMI is to accelerate the implementation of sustainable urban transport development and mitigation of climate change by mobilizing finance, building capacities and promoting innovative approaches.

Commitment

A transition towards sustainable urban mobility requires a shift in policy making and investment decisions. The Transformative Urban Mobility Initiative (TUMI) will support this transition by mobilizing significant investments in sustainable urban transport infrastructures and services, building the capacity of key decision makers and supporting innovative and transformative sustainable mobility approaches on the ground. Furthermore, TUMI will contribute to an improved dialogue on urban mobility with relevant stakeholders at global, national and local levels, and will increase the awareness of the private sector as well as civil society and help them mobilize to contribute more directly to the development of sustainable mobility solutions.

- Mobilize one billion USD to build and modernize sustainable urban mobility infrastructure
- Enable 1.000 urban change makers to plan and implement modern mobility concepts
- Support innovative pilot activities in cities across the globe

Partners and Signatories

TUMI partners are:

- Asian Development Bank (ADB)
- C40 Cities Climate Leadership Group
- CAF Development Bank Of Latin America
- Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ)
- German Federal Ministry for Economic Cooperation and Development (BMZ)
- KfW Development Bank (Germany)
- ICLEI (Local Governments For Sustainability)
- Institute For Transport and Development Policy (ITDP)
- Partnership on Sustainable Low Carbon Transport (SLoCaT)
- UN Human Settlements Programme - UN-Habitat

Relevance to advance the Paris Agreement goals

Rising temperatures, rising sea levels, and more frequent extreme-weather events underline the importance of climate-sensitive and -resilient transport services and infrastructures. The transport sector is responsible for 28% of the global final energy consumption and is already the second largest polluting sector. It is the fastest growing sector with regard to GHG emissions. By 2050, transport-related emissions are forecasted to increase by 120%. Resilience strategies support the needed adaptation to future climate related vulnerability. Our target: support our partner cities in building resilient services and infrastructures and reducing greenhouse gas emissions in urban transport.

Specifically, TUMI will mobilize financing for sustainable mobility – envisaged is 1 billion USD per year. It has specific goals on finance and capacity building.

Activities of the Initiative

<u>*Capacity building:*</u>

- Capacity building is core of our ENABLE pillar: ENABLE 1,000+ urban leaders, decision-makers,

planners and students to plan and implement sustainable mobility concepts. We will support political leaders and change-makers in their professional environments by providing tailor-made capacity-building formats (cf. capacity development catalogue).
- Regional networks, urban mobility labs, webinars and innovative approaches such as design thinking and peer-to-peer reviews are key elements. Together, we as TUMI-partners will strategically develop, strengthen and conduct capacity building programs for sustainable urban mobility.
- In the first year, TUMI partners have implemented more than 10 capacity building events with 480 participants from 45 cities. For examples, more than 80 urban mobility practitioners, mostly developing countries and emerging economies, especially from Africa, have participated in the TUMI conference prior to the International Transport Forum in Leipzig in May 2017.

Knowledge development:
- TUMI can draw from the broad knowledge base of its partners with a wealth of publications, training offers and other materials as well as established access to key resource persons and professionals. These elements are used in various capacity building efforts and other formats to build knowledge among individuals and organizations.

Policy-making and implementation:
- TUMI is only indirectly involved in policy making as it works through mechanisms such as capacity development, funding/financing and pilot measures. However, its partners aim at including lessons learnt and innovative approaches in policy dialogues and other formats. Further, it also supports the implementation of climate mitigation through policy based lending – thereby supporting policy making and implementation of national governments.

Monitoring and Reporting:
- An ex ante study on TUMI impacts was done in 2016, in addition to project-level monitoring. The impact of the initiative will be monitored and reported regularly.

18. Urban Electric Mobility Initiative

Urban Electric Mobility Initiative: **Harnessing technological innovations and better urban planning to promote low carbon transport**
Objective The Urban Electric Mobility Initiative (UEMI) was initiated by UN-Habitat and the SOLUTIONS project and launched at the UN Climate Summit in September 2014 in New York. The UEMI aims to contribute significantly to the overall goal of limiting the increase in global mean temperature to two degrees Celsius above pre-industrial levels by decreasing urban CO2 emissions globally.
Commitment UEMI committed to boost the share of electric vehicles in individual mobility (2-3 wheelers and light duty vehicles) and integrate electric mobility into a wider concept of sustainable urban transport that achieves a 30 percent reduction of greenhouse gas emissions in urban areas by 2030.
Partners and Signatories UN-Habitat and the Wuppertal Institute are hosting the UEMI, partnering with Industry actors, and development partners. UEMI is implemented by various EC-funded projects such as SOLUTIONS, EMPOWER and currently also Future Radar (Future Research, Advanced Development and Implementation Activities for Road Transport).

Relevance to advance the Paris Agreement goals

The UEMI has made progress on implementation concepts for e-mobility solutions in India and Brazil, provided training to cities to work together on the implementation of sustainable urban mobility measures and offered eLearning courses.

Activities of the Initiative

Outreach and coalition building:

- UEMI is working with cities on the implementation of sustainable urban mobility measures in the context of the New Urban Agenda. As part of urban implementation actions, the UEMI team now works with cities to assess the opportunities for e-mobility concepts in their wider sustainable transport strategy. The current 23 cities engaged in the program have a combined population of over 46 million people covering key emerging economies.
- Besides the 23 cities, more cities will be added in the future to benefit from the Capacity building efforts and implementation action.

Knowledge Building:

- UN-Habitat, the Wuppertal Institute and the Climate Action Implementation Facility jointly host the resource center for the UEMI, aiming to bridge the gap between urban energy and transport and boosting sustainable transport and urban e-mobility.
- The UEMI resource center provides opportunities for direct collaboration on projects focusing on sustainable urban mobility and the role e-mobility can play in it.

Policy-making and implementation:

- The UEMI pools expertise, facilitates exchange and initiates implementation-oriented actions. UEMI works closely with city governments and supports in the development of feasible action plans for pilot projects.

19. UIC Low Carbon Sustainable Rail Transport Challenge

UIC Low Carbon Sustainable Rail Transport Challenge:
On the low carbon track

Objective

UIC, the International Railway Association is proposing a transport sector challenge in the framework of the green growth agenda and climate change perspective for 2030 and 2050. This challenge sets out ambitious but achievable targets for improvement of rail sector energy efficiency, reductions in GHG emissions and a more sustainable balance between transport modes.

Commitment

Energy consumption and carbon intensity As a first step of the challenge, the world railway sector has set itself ambitious 2030 and 2050 targets for energy consumption and CO_2 emissions:

- Reduction in specific final energy consumption from train operations: 50% reduction by 2030 (relative to a 1990 baseline) 60% reduction by 2050 (relative to a 1990 baseline)
- Reduction in specific average CO2 emissions from train operations: 50% reduction by 2030 (relative to a 1990 baseline); 75% reduction by 2050 (relative to a 1990 baseline). These targets will be achieved by railway companies across the world through electrification of existing lines,

decarbonization of electricity supply, improving load factors, procurement of more efficient rolling stock, energy management systems and efficient driving.[27]
- Railway share of passenger transport (passenger/km): 50% increase by 2030 (relative to a 2010 baseline) 100% increase (doubling) by 2050 (relative to a 2010 baseline)
- Railway share of freight land transport (tonne/km): equal with road by 2030 50% greater than road by 2050

Partners and Signatories

The UIC challenge is supported by UIC's 240 member railway companies based in 95 countries worldwide. The Climate Responsibility Pledge was signed by more than 70 members of UIC.

Activities of the Initiative

Outreach and coalition building:
- Organized the Train to Paris and actively participated in COP22.
- Creation of the Climate Responsibility Pledge

Capacity building:
- Held workshops on rail adaption in London, Beijing, and Agadir under the RailAdapt Project
- Organized workshops on energy efficiency in the rail sector

Knowledge development:
- Developed the Environment Strategy Reporting System (ESRS)

Monitoring and reporting:
- UIC will monitor and report the progress by the rail sector towards achieving these goals using a dedicated Reporting System managed centrally by UIC and externally verified by an independent body. Results will be published on yearly basis on a dedicated internet site (www.CO2data.org).
- The initiative will release the IEA-UIC Handbook 2017 and 2018. It will also release the first report on the global register of modal shift projects.

20. UITP Declaration on Climate Leadership

UITP Declaration on Climate Leadership:
Supporting our goal to double the market share of public transport by 2025

Objective

Double the market share of public transport by 2025 and implement 350 commitments to climate action made by UITP members

Commitment

Commitment to support governments at all levels by providing them with technical knowledge from delivering action on the ground as this can support delivery of NDC's. It was also a commitment to support monitoring and reporting of SDG implementation (notably SDG 11.2 on expanding public transport) as this can help the better allocation of resources required for their delivery.

Partners and Signatories

UITP network extends to more than 1,400 companies, over 16,000 contacts from 96 countries.

Relevance to advance the Paris Agreement goals

[27] The targets were discussed and unanimously approved at the UIC General Assembly on 27 June 2014 (including the major railways of Europe, China, Russia, India & the USA). The targets are informed by the International Energy Agency (IEA) transport analysis and constitute a key component required to achieve the 2 degrees scenario (2DS) referenced also by the International Panel on Climate Change (IPCC).

Agenda at COP21, COP22 and now at COP 23, the Declaration's goal, which is supported by 1,400 members of UITP, is to double the market share of public transport by 2025 (PTx2). In doing so, it would allow us to cater for ever increasing demand for urban transport while decreasing per capita urban transport emissions by 25% (global average) which would ensure that we would move the transport sector in the direction of the COP 21 Paris Agreement.

The impacts of the 350 actions is outlined in the 2017 report of implementation.

Activities of the Initiative

Outreach and coalition building:

- The ITF (International Transport Workers' Federation) and the UITP joining forces for the first time to put public transport at the forefront of tackling climate change.
- In collaboration with the German Public Transport Association (VDV), arranging low emissions shuttles from UITP members for use at COP 23. On 5/11 an opening ceremony will be held where the buses will meet the tram-train coming from Karlsruhe. This will coincide with the national public transport day which has been especially moved to coincide with this event.

Capacity building:

- Workshops, trainings, study tours and conference will have been held over 2017 that will help scale up quality public transport interventions. Some of note include:
  - Training on Bus Rapid Transit (BRT) in Dakar, Senegal, at the end of 2017 (tbc). Senegal has stated in its NDC that it will undertake a BRT project in the city and this training will support its implementation.
  - 2-day workshop (24-26 July, Pune, India) on electric bus procurement and deployment.
  - 2-day workshop on (25-26 September 2017, Berlin, Germany) on operational recovery and asset protection in flooding exposed rail properties.

Knowledge development:

- 2,500 UITP members attended the UITP Global Public Transport Summit in Montreal in May 2017 which included a knowledge building session on decarbonizing the public transport sector.

Policy-making and implementation:

- Guidelines and tender structure recommendations that will help to scale up low emissions buses systems. This report to be made available to relevant parties to the UNFCCC convention prior to COP 23.

Monitoring and reporting:

- 2017 report on implementation of actions pledged under the UITP Declaration. Of the 350 actions pledged by UITP members at the 2014 UN Climate Summit, examples of implementation could be reported in 73% of cases in 2017. An increase of 54% compared with this time last year.

Sustainable Development Goals:

- Support the development of a Global Tracking Framework (GTF) under the Sustainable Mobility for All (SUM4ALL) initiative on urban access, which has at its core SDG 11.2.
- Support technical guidance on measuring Sustainable Development Goals (SDGs) which targets expanding public transport (SDG11.2).
- Integrate SDGs into the EU New Urban Agenda on sustainable mobility.

In 2018, UITP plans to develop tools and material to support UITP members to report on SDG 11.2 implementation both at the company, national and sector level.

21. ZEV Alliance

ZEV Alliance:
Accelerating global zero-emission vehicle adoption

Objective

The International Zero-Emission Vehicle Alliance (ZEV Alliance) is a collaboration of governments acting together to accelerate the adoption of zero-emission vehicles (electric, plug-in hybrid, and fuel cell vehicles).

Commitment

The ZEV Alliance works to accelerate the adoption of zero-emission vehicles (ZEVs), including electric vehicles, plug-in hybrids, and fuel-cell vehicles, to achieve national and subnational climate change commitments. The governments announced that they will strive to make all passenger vehicle sales in their jurisdictions ZEVs by no later than 2050 and to collaboration on policies and actions to achieve their ZEV targets.

Partners and Signatories

British Columbia, California, Connecticut, Germany, Maryland, Massachusetts, the Netherlands, New York, Norway, Oregon, Québec, Rhode Island, United Kingdom, Vermont are ZEV Alliance members.

Activities of the Initiative

Outreach and coalition building:

- The participants will continue to set ambitious, achievable targets for ZEV deployment, take actions to achieve those targets as appropriate in each jurisdiction, act together to achieve individual and collective targets, and encourage and support other jurisdictions in setting and achieving ambitious ZEV targets. The governments meet regularly to support their ongoing policy and technology developments in the respective jurisdictions and direct new work to establish global best practices to support ZEVs.

Capacity building:

- The ZEV Alliance member governments have continued to meet on a monthly basis to collaborate on wide-ranging policy and technical questions related to ZEV consumer incentives, electric power utility practices, consumer awareness programs, zero-emission freight truck technologies, and charging infrastructure to best support ZEV deployment. The ZEV Alliance, with several prospective new member governments, met in person in Amsterdam in May 2017 to chart out its priorities, ongoing activities, and plans to continue the implementation of the ZEV Alliance's commitments in 2017 and 2018. The ZEV Alliance also conducted two public webinars (on utility best practices, and consumer awareness campaigns to support ZEVs) to increase its outreach.

Knowledge development:

- The ICCT has prepared and published reports for the ZEV Alliance that summarize the ZEV Alliance exchange and the latest technology and policy research. The "Literature review of electric vehicle consumer awareness and outreach" summarizes leading global practices to educate and inform consumes of ZEVs. The report "Transitioning to zero-emission heavy-duty freight vehicles" assesses emission and cost implications of technologies to decarbonize heavy-duty freight trucks in China,

Europe, and the U.S. The report "Emerging best practices for electric vehicle charging infrastructure," analyzes electric vehicle charging infrastructure deployment practices, challenges, and emerging best practices in major electric vehicle markets around the world. Finally, the report "Developing hydrogen fueling infrastructure for fuel cell vehicles: A status update" provides an update on the role of fuel cell vehicles and hydrogen infrastructure to help meet zero-emission vehicle goals.

Policy-making and implementation:

- The ZEV Alliance's 14 governments have sustained and expanded many dozens of ZEV support policies throughout 2017, including new and continued ZEV consumer incentives, continued regulatory support for ZEV deployment, increased ZEV electric charging and hydrogen refueling infrastructure deployment, increased activities to promote electric power utility support for ZEVs, increased demonstration and planning activities to transition toward zero-emission freight trucks, and increased public ZEV public education and awareness campaigns.