

AMBITIOUS ACTION
on Transport and
Climate Change
FEASIBLE NOW



Transport @COP21 Paris

DAY SEVEN – 6 December 2015

Transport Day



Opening Perspectives

Transport Day 2015 demonstrated the resolve of the transport sector to take action on Transport and Climate Change and celebrated the progress made in integrating transport in the UNFCCC process: (a) INDCs make explicit reference to transport action; and (b) the Transport Initiatives associated with the SG Climate Summit and LPAA show that non-State actors are making effort to tackle climate change through the transport sector.

Transport Day continues to be the premier community-building event for the sector in the annual COP. Yesterday it brought together over 400 persons representing the different modes of transport (passenger and freight transport; road, rail, water and air) as well as the different constituencies (national and local government; transport sector organizations; development organizations; UN bodies; civil society and academe). Furthermore, since transport is a crosscutting issue for sustainable development and economic growth, it reflects the readiness and commitment of transport stakeholders to engage with other sectors.

The two mottos for the PPMC's COP21 campaign are "We Are Transport" and "Ambitious Action (on Transport and Climate Change is) Feasible Now;" it is these guiding thoughts that have framed Transport Day 2015 and its discussions.

Opening Plenary

Pat Cox, the Former President of the European Parliament and moderator of Transport Day 2015, welcomed the audience to the event, with the motto of the PPMC “We are transport”. He emphasized the need for ambitious action and that this action is feasible now. He was followed by Jean-Pierre Loubinoux, the Director General of International Union of Railways (UIC), the host of today’s event who summarized the past week at COP21 as positive and productive. He outlined the UIC’s own commitments to improve sustainable mobility and emphasized that although the rail sector contributes 1% of emissions, there is a desire to reduce emissions by 50% by 2050. This will contribute towards the modal shift from road to rail. Mr. Loubinoux, spoke of the need for a paradigm shift from competitive modes towards a complementarity of transport modes away.

SLoCaT Foundation Chairman and Deputy Transport Commissioner for Policy in New York City, Michael Replogle took to the stand to highlight this as a crucial time to broaden networks of sustainable low carbon action and observed that transport has finally been brought into the mainstream at COP21. He highlighted the need for the public sector to enhance capacity, the private sector to bring finance and the civil society to act as a catalyst for action. He recommended a move from a project based to a programmatic approach and the need to invest in the short term to reduce cost in the longer term. His closing statement was “onward together.”

Jean Dominique Senard, CEO at Michelin, outlined three key focus areas for transport initiatives in France: European mobility, long haul transport and personal vehicle driving. He spoke of the tremendous impact of these and stressed that it is time for Transport to stand up and speak out. Finally, Janos Pasztor, the Assistant Secretary General on Climate Change closed the initial welcoming session by emphasizing the need to act now on transport and not wait for a post 2020 agreement to be finalized. He spoke of the necessity to promote sustainable transport in line with economic growth, social benefits and environmental protection. He noted that COP21 in Paris will be a pivot point where policy is turned into practice.

From the SLoCaT partnership, Cornie Huizenga posed the question of how to raise ambition in the transport sector, noting that the incremental change thus far would not be enough to reach a two-degree scenario by 2050, and urged participants to brainstorm ideas for this throughout the day. He also asked the audience to embrace a vision of disruptive thinking on sustainable transport solutions. To support this, Patrick Oliva from the Michelin Challenge Bibendum reminded participants that governments, business and civil society all needs to work together to galvanize real transformation in the sector. He invited all attendants to identify the priorities in the sector to focus on in 2016. Finally, reflecting the usefulness of cooperation and the rising visibility of sustainable transport in the UNFCCC process, he ended his remarks by announcing that the Minister of Environment of Morocco has invited the PPMC to contribute to preparations for COP22.

Vision for an efficient, largely decarbonized transport sector by 2050

High-level representatives from industry, government, civil society and the finance world explored the question of what a rapidly decarbonizing transport sector could look like by 2050. Panelists challenged participants to thoroughly consider what could be achieved through disruptive in addition to incremental change along a 2050 time horizon.

BYD painted a vision of the future including electric and autonomous vehicles, while Zipcar’s founder challenged the status quo, describing a future that removes the need for private cars and

reduce the desire for cars over public transport. As vehicle technology is not enough, there must be links between public and private transport, as well as with the renewable energy sector.

BMUB also stressed that an incremental change will be insufficient, favoring a more holistic approach. In promoting a modal shift from road to rail, Alstom Transport emphasized the benefits to congestion and safety alongside decarbonization through greater attractiveness to passengers, the economy and the environment. The World Bank discussed the need for not only lower carbon but also more resilient transport systems, suggesting that disruption is unnecessary as known 'Avoid-Shift-Improve' solutions simply need to be put into practice.

SNCF outlined several ambitious targets supporting the theme of transformational change asserting that to meet transport's carbon budget, France must cut its use of private cars by half, increase the use of bikes and legs three times, and triple the use of shared mobility modes. DHL described the challenges for the logistics sector of making transport systems more connected, proposing that transport must be more efficient, more collaborative, and above all more human, and noting that 'the smallest positive action is more valuable than any big intention.'

The panel finished by emphasizing the importance of behavioral measures to bring out Decarbonization on an immediate timescale, while technologies are still being developed. A second key point was that public transport journeys must be personalized in order to compete with private car transport, by essentially making mobile phones 'remote controls for transport.'

Challenges that passenger and freight transport will face in significantly decarbonizing by 2050

Following the visioning sessions, several high level experts from the fields of technology, policy, and finance provided a reality check on current situations relative to realizing the 2050 vision and what main barriers need to be overcome.

With regard to transport's contribution to mitigating climate change, there needs to be a little bit of inspiration and a little bit of innovation. The challenges for freight and passenger transport between now and 2020 are numerous. Currently, infrastructure and finance gaps, ease of use issues and a limited regulatory regime hinder the development of sustainable mobility. However, more stringent targets for CO₂ efficiency (g/km) and including fuel suppliers in emission trading schemes can help broaden the sustainable transport policy vision.

Another successful strategy in urban areas is to limit lane kilometers available for cars and parking while expanding public transit, walking and cycling infrastructure. In the user context, redefining public transit to incorporate on-demand, responsive systems such as ITS and providing transfer-free services or limiting transfers to a minimum will encourage more sustainable travel behavior. Furthermore, action plans on sustainable transport need to be standardized and governments need to embrace pro-innovation regulations to stimulate private investment in sustainable mobility.

Developing countries face not only an infrastructure gap, but also cultural, social, and educational gaps. There is another gap in sustainable transport discussions, as car sharing and electric mobility are in the wheelhouse of developed countries, while conversations in developing countries focus on whether it's possible to work if it rains, rather than focusing on low carbon solutions. It is no longer possible to ignore these gaps in an increasingly interdependent world, and while teaching people to fish, it is also important to continue to give some fish away.

From ambitious visions to concrete and immediate actions

Seven break-out sessions reviewed existing conditions and required actions on technology, policy, finance, and eco-systems to make headway in advancing ambitious action on transport and climate change. All seven sessions included discussion of both mitigation/adaptation and addressed specific circumstances of developed and developing countries.

The break-out session on **transport and adaptation to climate change** focused on policy and finance impacts and concluded that there are many positive developments. Key takeaways include: there is growing awareness and tools exist and are available to be shared among developed and developing countries. It was also noted that adaptation solutions must be forward looking and adaptable to updates in long-term scenarios (e.g. degree of sea-level rise).

Apart from maintenance costs and service interruptions from impacts of increasingly more frequent extreme events, there are also social costs associated with the disruption of access to services. Although the international community is focused on quantifying these costs and at least 70% of INDCs incorporate adaptation within economy-wide emission reduction plans, very few prioritize sustainable transport with adaptation measures. Panelists emphasized that integrated, programmatic approaches with technical assistance offer long-term capacity for countries to build and maintain sustainable and climate resilient transport infrastructure.

People power: walking and cycling in low carbon transport systems. Key takeaways include: sustainable mobility can reduce carbon but also improve lives and increase safety. Political will is essential as demonstrated in the case of initiatives taken in Johannesburg. Recognition of walking needs to be enhanced as well as corresponding increases in investment in walking-supportive policies and infrastructure. Far more attention on collaboration to ramp up action worldwide is needed.
Everybody walks!

Business models for modern, inclusive, low carbon mobility and transport. Key takeaways include: a common barrier is a high initial capital cost even though whole-of-life cost can be lower compared to the business as usual. Climate finance can support new business models to address that gap.

The panel noted the rapid change in technologies, the high need for more ST and the significant role of cities and other sub-national governments. Viable business models exist but overcoming risk, obtaining scale and developing a track record of 'reference sites' for new technologies is important. Climate Funds can assist here. Institutional frameworks must also change to allow cities to have direct access to climate finance. The needs of consumers are paramount and are sometimes overlooked. Communication of the benefits of new sustainable transport solutions and technologies is critical to overcome political and consumer resistance. Given the pace of change, caution was expressed against extensive providing subsidies to new technologies when often transparent pricing across the board may be preferred.

Programmatic approaches were noted to offer the potential for scale-up particularly across multiple jurisdictions facilitating efficiencies in project preparation, implementation and providing investment opportunities for sub-national governments, the private sector as well as financing opportunities using green bonds and other debt instruments.

Low Carbon Urban Transport – challenges for planning and implementation in a multi-level governance context. Key takeaways include: echoing themes heard throughout the day, the participants agreed that low carbon solutions with many co-benefits are known but more work is needed to enable governments and stakeholders.

The Department of Transportation and Communication, Philippines explained how their proposed NAMA for transport has a huge potential for much needed structural change in their transport sector. CODATU described how the objective of MobiliseYourCity is to seek the commitment of one hundred cities to elaborate and implement sustainable urban mobility plans that will account for a 50%-75% reduction of transport related emissions.

The Polis Network highlighted their success to create a platform where cities can share their expertise and knowledge to link transport with issues such as health, energy and air quality. From their experience this has had a very positive impact as they noticed that people might not have behavioral change because of climate change, but will if it is linked to health issues. The private sector responds to transparency and to social stability, thus countries need to do their part by having strong institutional structure and clear policies on the issue. After the presentations, there was a small discussion where each panelist described their work promoting low-carbon transport with sound policy frameworks recognized to being critical.

The Role of Fuel Efficiency for Transport Modes in achieving the 1.5/2DC Objective. Key takeaways include: fuel economy is not an exciting topic but has the potential to save trillions of dollars and yield many co-benefits. There is a need to ramp up enabling policies to provide incentives beyond fuel economy standards and accelerate technology development, and to further engage the private sector. Sometimes metrics do not exist. Transparency is essential to ensure progress and compliance.

The Global Fuel Economy Initiative (GFEI) presented its latest report where they described how doubling fuel economy of new cars by 2030 and all cars by 2050, would yield 33 GT of savings of CO₂ between 2015 and 2050 and the USD 2 trillion savings in fuel, of which USD 500 billion would meet the cost of initiating a transition to electric cars. There is recognition of the need to establish regional roadmaps on fuel efficiency. Nevertheless, several countries have different levels of engagement on energy efficiency. There are several barriers to overcome including the lack of leaders to champion the issue at the regional level.

Electrifying Road Transport. Key takeaways include: there are cost-effective opportunities in buses and 3-wheelers now but more is needed to go beyond traditional concepts of e-mobility.

The session on electrifying road transport focused on describing different studies or findings on the relevance of electrifying road transport and how it could improve the probability of achieving a two-degree scenario. Such a probability is higher when two wheelers are also taken into consideration when promoting electrification. It is more difficult when it comes to electrifying light duty vehicles (20C assumes a rapid electrification). Sales of plug-in electric vehicles have risen very quickly in the world (mostly US and EU), though they're still less than 1% of global automobile sales. Buses, as has been mentioned in various sessions, are complex but very relevant – they can achieve cost-recovery over five years and can generate great benefits with not so many changes in the overall system.

The solutions to achieve real change are not just related to technological improvements (i.e. changes to electrified fleets) but have great necessity of improved regulations, travel demand management and concrete steps to reduce the use of high-emissions vehicles such as fiscal subsidies, non-fiscal instruments and policy goals. Infrastructure is also crucial in order to have an effective system of electrified transport. There has been considerable progress in the charging options, and most people charge their vehicles at home though off-street charging happens frequently.

Contribution of Rail in Mitigating Climate Change. Key takeaways include: e-mobility for rail has been with us since 1883 but reinvigoration is needed. More cross-modal thinking is critical along with proper consideration of external costs so investments are made on a common basis. An appropriate enabling environment is needed for proven and new mitigation solutions.

Many of the world's railways are not being used as well as they could be but there is a very significant quick win: modal shift from road to rail in passenger and freight transport. This reiterates a recurrent theme throughout the day that technological developments are not the only answer, behavioral change is also required. Each of the panel gave a short presentation of an example of how the rail sector has or is in the process of mitigating climate change.

The countries of India and Ethiopia were represented, and described how they are respectively modernizing and expanding their rail networks in order to facilitate a modal shift from road to rail for both passenger and freight transport. Examples from Europe were also provided, where so far a modal shift from road to rail has failed to materialize to the extent desired, despite technological advancements. Munich has demonstrated ways in which the city is matching demand for public transport by providing 21-24 hour tram and metro services. Combining this with technological improvements the city is using 5-20% less energy per passenger per kilometer.

Alstom described the numerous ways in which rail manufacturers can modernize their fleets in order to improve energy efficiency, for example innovations in rolling stock, energy efficient services and smart railways. Skoda Transportation finished by offering an aspirational vision for the future of transport.

Sustainable Transport Action Announcements

In the sustainable transport actions announcements session, ten different organizations introduced their initiatives to highlight the wide range of initiatives being taken in different parts of the transport sector, which included areas such as climate finance (e.g. Low Carbon Transport Standard for Climate Bonds), sharing economy (e.g. Routemonkey.com) and technological innovations (e.g. Panama Transport NAMA) in freight and road transport.

Measures proposed include sharing of knowledge (e.g. ETRA and IFSTTAR), capacity building (e.g. PIANC Action Plan), awareness raising (e.g. 365 Campaign, CODATU photo competition), changing social behavior (e.g. Bla bla car) and developing standards (e.g. Low Carbon Transport Standard for Climate Bonds), especially regarding the gathering of stakeholders for a scale-up effect (e.g. Walk 21, Industry pledge to COP21 to Achieve Electromobility Goals).

Sustainable Transport Champions

A subsequent session showcased countries that through their INDCs have demonstrated commitment to take action on transport and climate change as well as initiatives from the transport sector by non-state actors that will result in action by the transport sector itself. Examples were provided of potential linkages between specific INDCs and transport initiatives. INDCs are important as are proposed by countries. INDCs also represent the first time transport is represented at the COP. This session therefore showcased country-level initiatives.

Abidjan is using their urban directive plan as a key instrument to address urban challenges to provide mass transport that is safe, secure, affordable and environmentally friendly. Initiatives are comprehensive but long term focusing on public transport (trains, buses and waterways) but also enhancing the road network. In the long term they are aiming to develop a railway system known as the 'Y4' similar to that in Paris. But they recognize they need partnerships with all parties.

Ouagadougou municipality faces similar issues of rapid urbanization, increased congestion and poor road safety. While they propose projects to improve urban mobility, importantly they also aim to increase urban densities to limit the need for travel. They also emphasize the important for improving institutional arrangements for urban transport.

CODATU's representative drew comparisons between the experiences of these two different African cities. Both are motorizing rapidly with severe safety and environmental issues. CODATU's approach to work with cities on INDCs is essential to address climate change and broader sustainable development concerns. They stress the importance of addressing institutional frameworks and enabling cities to implement INDCs using the Avoid-Shift-Improve approach.

Seventy eight percent of all GHG emissions in Costa Rica come from the transport sector well above the global average of around 30%. A major contributor is the rapidly growing fleet of private vehicles – there are 4.1 million vehicles today but most are older than 15 years in age. Since all energy generation is based on renewables, Costa Rica proposes to switch to electric public transport vehicles, integrate public transport (BRT, inter-urban rail), and improve NMT. It appears that before demand management for private vehicles will be considered, dramatically improved public transport must be provided. The experience in Mauritius, though a small island nation, demonstrates similar issues and the need for local actions.

The Global Fuel Economy Initiative is having an impact in regulated markets and will impact on fleets in developing countries. They are recognized in the SDGs and elsewhere. As was heard in many fora today, the need for awareness raising and capacity building should not be underestimated.

How do we keep sustainable, low carbon transport on the international agenda after COP21?

At Transport Day 2015, several policy and technology solutions for sustainable transport were proposed however many participants acknowledge a broader agenda beyond just transport -- including urban planning, energy and even cultural paradigms. Post COP21, there is a need for public policy message through artists and opinion leaders to communicate an inclusive vision of sustainable mobility that enhances economic and social opportunity while mitigating climate change.

This message should also include a change in value system on mobility and how we measure as well as leadership that facilitates research and development of sustainable mobility solutions. Accessibility and connectivity are the future of mobility. Together with intelligent transport systems and transport demand management, there is significant potential for decarbonization.

COP21 presents two contrasting outlooks for the transport industry: it reflects an opportunity for change but also requires a seismic shift in the way it operates. Nonetheless, Original Equipment Manufacturers (OEMs) in the automobile and railway industry are committed to further accelerate the decarbonization of the fleets – the focus is going to be alternative powertrains and low-emission vehicles. Market uptake remains slow but it is increasing. In addition, fuel and vehicle technologies will improve significantly allowing consumers to choose from a wide variety of mobility options.

The Netherlands has promised to take action on transport and continue to support contribution of non-state actors during the next 6 months of its EU Presidency. It has also has a national vision for alternative fuels more than 2 million e-vehicles and 3 million e-bikes by 2030 and scaling up to

100% by 2050. Hydrogen can also help foster this vision of mobility as it is one of the most efficient ways of storage of energy.

We know what to do, we know how we can do it but we really need to make sure we do it – with better use of international processes, which in the past have not been well adapted to the needs of transport. We have a menu of policies and technologies that can be used to scale up sustainable mobility.

Paris can already be considered a success, as many INDCs have mentioned transport that are not the ‘usual suspects’ such as Gabon or Belize, where we have not seen so much attention to transport. After Paris it will be necessary to develop financial capacity and ratchet up INDCs but also implement them, while increasing adaptation as well as mitigation measures.

To bring these pieces together, it is necessary first to support national governments’ support of sustainable transport through strengthening legislative frameworks and linking to national commitments on INDCs. This is important to ensure that the people who are able to make change are actually making those changes. This will form a sound basis for implementing the 2016 action agenda based on the recent announcement from the UN Secretary General on the May high-level summit on climate change and sustainable energy, to help further accelerate infrastructure, information, and investment. The World Bank will, in coordination with ITF and the PPMC, lead the transport track in the preparation of the summit to ensure that there is a focused track of action, and to focus on the fact that actions must speak louder than words.

In summing up the moderator concluded that:

- Actions speaks louder than word
- It is important to link low carbon transport with Road safety and inclusiveness
- Cross-financing and new types of financing need to be considered
- Leadership is key

Transport Champions of the Day

Throughout COP21, SLoCaT daily reports will highlight progress in the transport sector at national levels, as reflected in national-level transport measures in Intended Nationally-Determined Contributions (INDCs) and by subnational actors through a number of [transport commitments](#) linked to the Lima Paris Action Agenda (LPAA).

Transport-Focused INDC of the Day

China intends to peak CO2 emissions around 2030 but to make best efforts to peak earlier. They intend to lower CO2 emissions per unit of GDP by 60% to 65% from 2005 levels.

Integrating low-carbon development in the entire process of urban planning is the main goal of transport measures in China’s INDC. This will be achieved through a range of proposed transport measures like improving the quality of gasoline and new types of alternative fuels, promoting the share of public transport in motorized travel in large- and medium-sized cities (targeting 30% mode share by 2020), the development of dedicated transport system for pedestrians and bicycles in cities and accelerating development of smart transport and green freight transport.

China's INDC can be viewed [here](#), and SLoCaT's transport-focused analysis of INDCs can be viewed [here](#).

Transport Initiative of the Day

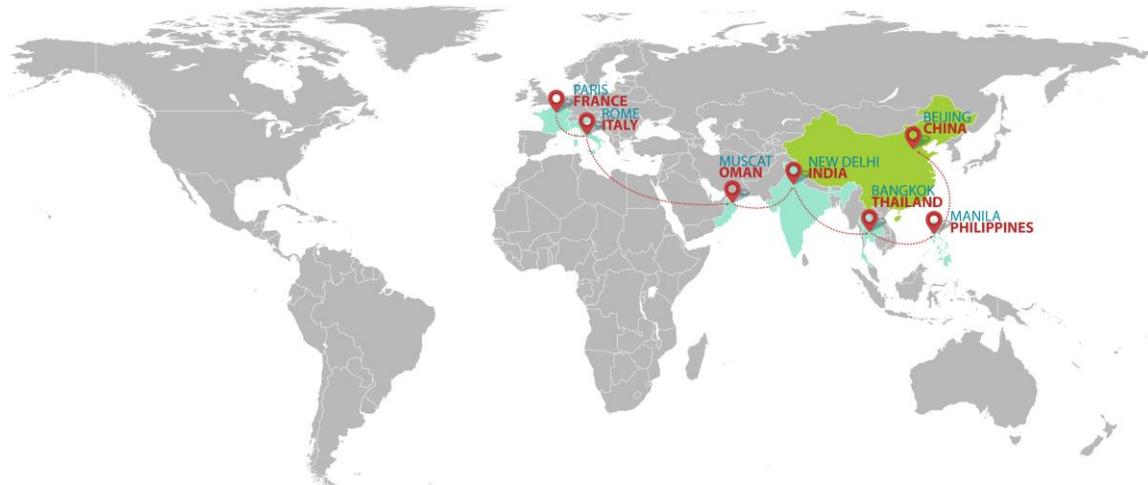
The ITS for the Climate Initiative launched in October 2015 at the ITS World Congress calls for massive deployment of ITS technologies, aided worldwide standards, to decrease CO2 emissions through better informed decisions. Under the motto, "Using Intelligent Transportation System (ITS) to deliver big results at a small cost," the initiative can be a crucial lever in the fight against climate change by spreading awareness about ITS and delivering accurate information; training and developing experts, promoting and "cross-fertilizing" to build on past successes; defining a methodology to precisely measure the impact of projects' and developing incentive programs for ITS project deployment.

For more information, please visit www.atec-itsfrance.net.

Best Practice Climate Action in Transport (80 Days Campaign)

The "Around the World in 80 Days Campaign" documents and communicates climate actions in the transport sector. The 80 Days Campaign is an initiative of the Netherlands government and the Paris Process on Mobility and Climate (PPMC). It references the famous Jules Verne novel to create a time-bound process prior to COP21.

On the seventh day of the COP21 journey, we would like to bring you to China for a transport climate action on Green Freight Demonstration Project:



Seventh stop. China. Beijing. December 6, 2015
Green Freight Demonstration Project



This project has three components:

1. Energy efficient vehicle technologies, including optimizing tire pressures and monitoring them more frequently, improving the design of the roof and gap fairings, light weighted the (semi-)trailers, introducing LNG as a truck fuel, improving the side skirt design and using low rolling resistance tires.
2. Logistics organization mode including drop-and-hook transport system (drop-and-hook is when the driver just 'drops' his trailer at the customer's location, without unloading it, and "hooks" to another trailer that is preloaded and ready to go).
3. Improvement of standardized information. A green freight information platform has been established via a web site. This helps to publicize the green freight concept and demonstrate results and videos, posters and newsletters help to build greater awareness.

For more information of the transport climate action, please go to [here](#).

Closing Thoughts

Transport Day 2015 marked a milestone for sustainable mobility, and the ministers and CEOs in attendance demonstrated the commitment by countries and industry to urge and challenge to transport community to take the process further in incremental and disruptive steps. This community can say we are transport and that we are also committed to action. Paris is the pivot to instill a sense of community and a sense of pride to onward together.

Announcements and Upcoming Transport Events

Forthcoming transport-related events include the following:

December 7

- [“Fer de France morning debate: Sustainable mobility by 2030, what models for rail transport?”](#) Organized by Fer de France (December 7, 9:45-10:30, Gallery Musée de l'Air et de l'Espace - Le Bourget Aéroport de Paris)
- [“Around the world in 80 days – Climate action in transport of goods”](#) Organized by The Netherlands Ministry of Environment and SLoCaT Partnership (December 7, 12:00-13:00, The Netherlands Climate Pavilion, Blue Zone)
- [“Low Carbon Transport Messages for Governments – Messages from Non State Actors”](#)

Organized by The Netherlands Ministry of the Environment and Paris Process on Mobility and Climate (December 7, 14:00-15:30, The Netherlands Climate Pavilion, Blue Zone)

- “Climate Action Takes Flight on International Aviation Day” Organized by ATAG (December 7, 15:30-17:00, Espace Generations Climat, Green Zone)
- “Green Freight Lean and Green” Organized by Connekt (December 7, 16:00-17:30, The Netherlands Climate Pavilion, Blue Zone)

December 8

- [“High-level briefing by Secretary General's High-Level Advisory Group on Sustainable Transport \(HLAG-ST\)”](#) Organized by UN DESA (December 8, 13:15 - 14:45, Le Charente, Hall 6)
- [“High-Level Event on Zero-Emission Vehicles”](#) Organized by ZEV Alliance and International Energy Agency (December 8, 13:30-15:00)
- [“New Developments in Role of Climate Finance and ODA for Sustainable Transport”](#) Organized by SLoCaT Partnership, GIZ, Adenauer Foundation, and MDB Working Group on Sustainability (Dec 8, 16:00-17:30)

Please visit the PPMC [Transport Events at COP21](#) website for a full listing of forthcoming transport events.

In addition, we would like to invite our readers to join the **We Are Transport** social media campaign we have launched on Twitter. PPMC invites everyone to support the We Are Transport Campaign and join the discussion on Twitter using hashtag #WeAreTransport. For more information, please visit <http://ppmc-cop21.org/common-messages/>.

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