Meeting Report: 12th PCFV Global Partnership Meeting
5-6 March 2019: Paris, France

The Partnership for Clean Fuels and Vehicles (PCFV) held its 12th Global Partners Meeting on 5-6 March 2019 in Paris, France. The meeting was hosted by the UN Environment, the Secretariat of the PCFV, at their Paris offices. A total of thirty-six partners drawn from the oil and vehicle industry, government, non-governmental organizations and the academia participated in the meeting.

The introductory remarks were made by Mark Radka, Chief of the Energy and Climate Branch, Economy Division, UN Environment. He welcomed partners to the meeting and reiterated the “power of collective impact” that the PCFV has successfully harnessed in their work to eliminate lead in petrol, introduce low sulfur fuels and adopt vehicle emission standards in developing and transitional countries. He noted that mainly due to the PCFV activities, the global elimination of leaded petrol is now within reach with one or two countries remaining while more countries are increasing shifting to low sulfur fuels. He pointed out that such effects of cleaner fuels and vehicles were not just felt at city/national level, but impact on climate change and contribute to international goals such as the Sustainable Development Goals and the Paris Climate Agreement. He assured partners that the PCFV program has the endorsement of top-level management at the UN Environment due to its impact on health and the environment.

Day 1: Tuesday, 5 March 2019

Moderator: John Walsh, Afton Chemicals

Session I: Overview of Progress Made to Introduce Cleaner Fuels and Vehicles - Jane Akumu, PCFV Secretariat, UN Environment

The PCFV Secretariat presented on the 2016-2018 programme of work which showed that leaded petrol has been eliminated in 84 out of 86 countries. Two countries are yet to eliminate leaded petrol - Yemen and Algeria - with Iraq stating that they are conditionally unleaded. In addition, great progress has been made in the introduction of low sulfur fuels. A total of 36 countries have switched to low and ultra-low sulphur fuels (50 ppm and below). A further 15 countries adopted Euro IV and above equivalent vehicle emissions standards. The Secretariat noted the difficulty of getting information on countries in unstable political situations. Despite the acknowledgment that good progress has been made, the work remains far from over.

An overview of the financing of the PCFV from 2002-2019 was presented. In total the PCFV has received donor contributions totaling over USD 18 million since inception (including other related funding from the CCAC and UN Environment). From July 2016 to February 2019, donor contributions stood at USD 2.5 million – with the largest contributions directed to Africa. It was
however noted that PCFV donor contributions over the past years have continued to decline hence the need for innovative approaches to fund raise.

**Session II: Role of Lubricants to Vehicle Emission Reductions - Rich Kassel, Capalino+ Company, Chair of the Lubricants Working Group**

The Capalino+ Company and The Lubrizol Corporation who co-chaired the Lubricants Working Group presented the working group findings. They emphasized that vehicles and fuels are a system and therefore the importance of “using the right oil for the right vehicles, to protect engines, reduce fuel costs and cut emissions.” Independent studies have shown the benefits of fuel-efficient lubrications, especially in the heavy-duty sector. Lubrizol stressed that a new generation of lubricants are entering the market to help meet new emission standards. High-quality lubricants are necessary for developing and transition countries, as they increasingly import used vehicles with advanced after-treatment technologies at Euro 4/IV standards and above. The introduction of Euro 6/VI will further compound the need for higher performance lubricants.

Partners noted that the need for public awareness as there was a misconception that thicker oils are better. In addition, in many developing countries oils are being repackaged and relabeled. Lubrizol spoke on the possible role that the PCFV could play in stakeholder outreach to help end-users use the right lubricants- i.e. establishing performance standards. Lubrizol highlighted that a classification of lubricants by energy performance could be developed to give customers greater knowledge on types and efficiency of lubricants.

There was a discussion on whether the PCFV would be broadening its scope too large by the inclusion of lubricants, noting that the PCFV success can be attributed to its more narrow-targeted campaigns. Partners noted that the need for proper lubricants could be added to cleaner fuels and vehicle discussions at country and regional level as reduced vehicle emissions would not be fully achieved unless poor quality lubricants were also addressed.

**Session III: Global Fuel Quality Overview: Key Findings from Global Fuel Sampling - John Walsh, Afton Chemicals**

Afton Chemicals presented an update on fuel quality sampling data from selected countries around the world on levels of lead and sulphur in fuels. As the samples are limited, the results are indicative and do not give a comprehensive overview of fuel quality in the sampled countries. Partners agreed that the sampling data was useful in providing indicative levels of lead and sulphur in fuels in countries and serves to enhance confidence levels on PCFV data as well as indication of official standards vs. real specifications. There was a discussion on the need for a wholistic approach on fuel quality specifications. Partners were informed that Ukraine was testing the LPG quality in addition to the diesel and petrol quality. While 30% of fuel tested in Russia did not meet the country’s specifications. Partners noted the importance of monitoring, controlling and legislating fuel quality to ensure specifications are met. Partners stressed the importance of having consistent data collection and reporting, and thanked Afton Chemicals for acquiring the data.
Session IV: Overview of Used Vehicles

a) Overview of UN Environment’s Global Used Vehicle Report - Ariadne Baskin, UN Environment

It was noted that while the quality of fuels in developing and transitional countries have improved, obsolete and outdated vehicle technologies continue to be imported through the global second-hand vehicles market that is mainly unregulated. The UN Environment presented some of its findings on the global used vehicle market flows that will be contained in the Global Status of Used Vehicle Report. The UN Environment is also compiling a Database that will collect and analyze all the currently available public sources of data on used vehicle market flows.

It was noted that in general, the used vehicles markets in a majority of emerging and developing countries have minimal or no policies governing the import and maintenance of vehicles. This is exacerbated by a lack of basic vehicle emission standards and vehicle age caps, which would help to promote the import of safer, cleaner and more fuel-efficient vehicles. For example, most countries in Africa do not place any non-tariff restrictions on the importation of used vehicles and thus qualify as having a ‘weak’ or ‘very weak’ regulatory environment towards importing quality used vehicles – in accordance to UN Environment’s ranking. On the other hand, an import ban is a popular measure in Asia-Pacific and South America. However, a total ban of used vehicle import is not always an ideal approach, instead an age limit coupled with an emission standard of Euro 4 or above can ensure access to more affordable and advanced vehicle technology.

Partners congratulated the UN Environment for the comprehensive set of used vehicles data, which will support the PCFV goals of promoting cleaner vehicles. Partners emphasized the need for a regionally harmonized approach; the importance of including exporting countries to the debate and scrappage programs. The incorporation of an age limit as an effective regulatory measure was debated and if the PCFV would address in-use emissions beyond importation issues. PIEA noted that we need a 2-pronged approach on vehicles in East Africa: an age limit and an efficient, safe and reliable public transport system since challenges and interventions are localized. Other issue discussed include batteries disposal, end-of-life cycle and vehicle safety. Partners were however of the opinion that other players would need to be included into this discussion as the scope was beyond the PCFV. Partners agreed that it is essential that age and emission standards are harmonized across sub-regions and regions, as divergent limits allow for leakages through porous borders. Partners also agreed that it was important to also include in-use vehicle testing programs with penalties as the ultimate objective of the PCFV is cleaner air. The examples of Beijing and Rwanda were provided on lowering emissions from in-use vehicles. Again, it was noted that for effective I&M programs, it was important to move away from just lead and sulfur considerations. There was also discussion to link in-use vehicle inspection to the UNECE agreement/process (https://www.unece.org/trans/main/wp29/wp29wgs/wp29gen/wp291997.html).
b) PCFV Used Vehicle Report - Mike Walsh, Chair of the Working Group

Mike Walsh, the chair of the Used Vehicle Working Group presented on the working group’s report on Addressing the Used Vehicles Market: Potential Strategies for importing and exporting countries to improve safety, fuel economy and emission impacts. The report provides a menu of potential strategies and recommendations that importing and exporting countries may use for cleaner and safer used vehicles market. The report provides case studies of actions taken at country level to encourage the import of better-quality vehicles. In many developing countries addressing used vehicle imports is more important than setting new vehicle standards since the bulk of vehicles imported are used. The PCFV sets a target on a maximum of 50 ppm and below sulfur in fuels and a minimum of Euro 4/IV or equivalent vehicle emissions standards. Strategies that importing and exporting countries can adopt may include roadworthiness requirement, emissions compliance, end-of-life recycling, vehicle age limits and mileage, and aftermarket support.

Environment and Climate Change Canada pointed the need to incorporate harmonized used vehicle standards in global treaties (such as the Basel Convention). Lubrizol emphasized the importance of setting lubricant standards and NAAMSA - the National Association of Automobile Manufacturers South Africa - the need to develop after-market support and extended producer responsibility. Again Partners stressed the need to hold both exporting and importing countries accountable for the quality of used vehicles; work with regional economic bodies on harmonization of standards; incentivizing the import of low and zero emission vehicles through favorable import policies; and the need for importing countries to link their vehicle import policies to the most stringent level possible based on current or soon to be applied local fuel quality.

Day 2: Wednesday, 6 March 2019

- Moderator: Rich Kassel, Capalino+ Company

Session V: PCFV Partner Update

The following programs by PCFV Partners that are relevant to the PCFV mandate and goals were presented. Partners agreed to continue to link the work of the PCFV with these programs.

a) Supporting a Global Shift to Cleaner Fuels

i. The Real Urban Emissions Initiative (TRUE) – Sheila Watson, FIA Foundation

The FIA Foundation presented the TRUE Initiative which exposes the gap between tested and real-world emissions from the vehicles on our roads. Some of the preliminary findings of on-road vehicle emission testing in developed countries found out that some vehicles were emitting 15 - 30 times more pollutants than is permitted. The FIA Foundation stressed the necessity of this initiative for urban air quality following the dieselgate scandal. The True Initiative provides a global, transparent database for real world emissions that can be used for strategic decision making and good consumer choices – hence matching real world emissions to standards. It was noted that citizens want to know what is happening in their cities. True Rating results show that NOx emissions are
systematically much higher for diesel cars, even for the newest Euro 6 models. In the long-term markets would decide if diesel cars are viable as the trend currently showed a decline in diesel market share with cities like Munich indicating a ban on diesel cars. It noted that remote sensing technologies may be viable for developing countries to get profile of emissions from vehicles. It was mentioned that China was considering supporting a few African countries with remote sensing technology.

ii. Promoting Safer Vehicles- David Ward, Towards Zero Foundation
Towards Zero Foundation (TZF) is a charity organization that is supporting zero fatalities and zero emissions. Towards Zero Foundation hosts the Global New Car Assessment Programme (NCAP) that promotes crash testing and regulatory action for safer vehicles worldwide. The Green NCAP incorporates fuel efficiency in the safety agenda. Towards Zero Foundation emphasizes the importance of combining the emission agenda with the safety agenda. Both broken bones and asthma are vehicle injuries. The two agendas need to engage more in systematic discussion, this will be in part addressed by the Global NCAP World Congress China 2020.

iii. IPIECA Fuel Sulphur Guidance- Jim Herbertson, IPIECA
IPIECA aims to improve the environmental and social performance of the oil and gas industry. An overview was provided on a newly published guidance document on Fuel Sulphur: Strategies and Options for Enabling Clean Fuels and Vehicles. The report looks at the sulfur cycle, air quality and mobile sources emissions management, vehicle emission control technologies, refining processes and concludes with a set of strategies and options that countries and regions need to consider when reducing vehicle emissions.

iv. Global Fuel Quality Developments- Anas Abdoun, StratAs Advisors
Stratas Advisors presented information on fuel specifications and vehicle emission standards, including sulfur limits in gasoline and diesel for 2019. Since January 2019, Fiji implemented 50 ppm (petrol fuel) and Mexico 15 ppm (diesel fuel) in most regions except Bajio-Centro. In 2018, the UAE adopted 50 ppm fuel, and Bahrain and Qatar are at 10 ppm. Stratas also gave an outlook of likely scenario for countries/regions shifting towards low-sulphur fuels. It was agreed that the PCFV should have a chart that shows the multiple dimensions of vehicle emission standards (in addition to Euro standards – for example age import limits, etc.). The Association for Emissions Control by Catalyst pointed out that EURO 7 is likely to be implemented by 2025.

b) Key Achievements and Next Steps for the Regions

i. Africa - Wanjiku Manyara, Petroleum Institute of East Africa
Africa has almost eliminated lead in petrol (Algeria is the only exception) and has made considerable progress in introducing low sulphur fuels with Ghana, Malawi, Mozambique and Zimbabwe introducing low sulphur fuels (petrol and diesel) in 2017. In 2019, East Africa is likely to move to 10 ppm diesel and 50 ppm petrol. ECOWAS has drafted harmonized 50 ppm fuel standards (petrol and diesel) and is drafting regionally harmonized vehicle emissions (Euro 4/IV). Additionally, draft vehicle emission standards have been developed in Botswana, Uganda, Kenya, Ghana,
Mozambique and Benin. However, it was noted that there continues to be mismatches between fuel quality and vehicle emission standards in many countries in the region. Refinery upgrading was emphasized to be able to meet cleaner fuel standards. Partners stressed the need to better quantify the health gains from cleaner fuels and vehicles to raise awareness and support decision making.

ii. Asia - Glynda Bathan, Clean Air Asia
There is significant progress in Asia, particularly in the ASEAN countries to eliminate sulphur in fuels and implement vehicle emission standards. China is at Euro 6/VI and Indonesia, Philippines, Sri Lanka, Thailand, Vietnam are at Euro 4/IV vehicle emission standards. MECA noted that China 6/VI standards were considered the best in the world as they combined the best European and US standards. Clean Air Asia also highlighted the ASEAN Fuel Economy Roadmap for the period 2018-2025. Partners were briefed by the KBPP of fuel and vehicle progress in Indonesia, including requirement for biodiesel and electric mobility. There was concern with Indonesia reverting to lower fuel grades due to availability of different grades of fuel. CSE noted that the uncertainty in the Indian market which hopes to move to Euro 6 by April 2020. It was noted that India currently taxes diesel cars higher and has put considerable effort into electrifying their public transport. The need for increased assistance to smaller countries in the region like Laos, Myanmar, and Cambodia to implement cleaner fuels and vehicles standards was pointed out.

iii. Latin America and the Caribbean – Ariadne Baskin on behalf of Gianni Lopez, Centro Mario Molina Chile
Many countries and cities have made considerable strides in moving towards better vehicle emission standards for heavy-duty vehicles. Santiago City has adopted Euro 6/VI buses. Brazil has announced intentions to move to Euro 6/VI by 2025. Peru has adopted Euro 4/IV vehicle standards. It was noted that the region is a global leader in electric buses for public transport – Santiago (200), Medellin (60), Quito (30), Buenos Aires (8). San Jose, Costa Rica and Lima, Peru are starting demonstration E-bus projects. However, there has been not much progress on light-duty vehicle emission standards and clean fuels. Peru has 50 ppm in 92% of the country, pending a refinery upgrade. Guatemala, Honduras and El Salvador have moved to 500ppm.

iv. Central and Eastern Europe - Oleg Tsviliv, International Standardization Academy
Central and Eastern Europe has made considerably progressed with the support of the PCFV. 12 countries in the region have been supported on desulphurization and lead phase-out with 21 country agreements. Ukraine, Macedonia, Moldova, Georgia and Montenegro have undergone vehicle fleet baselines with the GFEI. Montenegro has adopted a mandatory fuel economy labelling. Moldova has reduced sulphur content in gasoline and diesel to 10 ppm. In 2019 Georgia will have 50 ppm diesel and 10 ppm petrol. Georgia fully exempts excise duty for electric vehicles. Ukraine is a global leader on electric vehicles, in 2018 they exempted VAT on EVs and have endorsed the GEF 7: Global Electric Mobility Programme. Russia / NIIAT gave a short update on CIS countries customs union progress and status. From the discussion, it was clear that the problem is not in developing regulation but more on compliance and monitoring.
Session VI: Related Topics and Way Forward

- **Moderator Mike Walsh**

a) Links with Other Clean Fuels and Vehicles Initiatives/Agreements

i. **New Global Fuel Economy Initiative - Sheila Watson, FIA Foundation**

The FIA Foundation updated the Partners on the progress and activities of the Global Fuel Economy Initiative (GFEI) including IEA mobility model that had interested governments on the need to act now. Fuel economy is steadily improving in non-OECD countries, but not enough. Countries are still far from meeting the target of doubling their fuel economy by 50. The GFEI has provided momentum to achieving this target through capacity building workshops in Jamaica, Colombia, Ukraine, Malawi, Togo and South Africa amongst others since 2018. The GFEI has also set new targets to focus on EVs and HDVs.

ii. **Climate and Clean Air Coalition - Denise Sioson, CCAC Secretariat**

The Heavy-Duty Vehicles Initiative (HDVI) was presented by the CCAC Secretariat. The Coalition has raised the profile of short-lived climate pollutants. The PCFV and CCAC overlap in the work on low sulphur diesel fuel. HDVs emit disproportionate amounts of particulate matter (PM) and black carbon (BC), a potent short-lived climate pollutant. The HDVI is working on developing a Global Industry Partnership and is actively involved in Santiago, Accra, Johannesburg, Bogota, Sao Paulo and Bangkok. The CCAC plans to reduce PM and BC emissions from vehicles by >90% by 2030.

iii. **Electric Vehicles Programme - Jane Akumu, UN Environment**

UN Environment’s Electric Mobility Programme that supports developing and transitional countries shift from fossil fuel to EVs was presented. There are three pillars of work under this programme—on electric cars, electric busses and electric 2 & 3 wheelers. It was noted that the uptake of EVs in developing countries is expected from used vehicles imports, however countries must incentivize their purchase through tax breaks. The GEF7: Global Electric Mobility Programme was also presented to Partners. The need for charging infrastructure as EVs increase was noted. Partners were informed of electric buses being implemented in Russia were charging infrastructure was already noted as a hindrance. 95% of EVs are charged at home.

b) Next Steps and Wrap Up

The Secretariat presented the areas of focus for the PCFV for the next 2 years. Partners agreed that the PCFV is most successful with a narrow scope and targeted campaigns. While the PCFV will continue to support national/city level activities, a regional approach is also key. The PCFV will engage regional partners towards regional harmonization of clean fuels and vehicle standards. Partners also agreed that addressing used vehicles imports would be critical to promoting the PCFV’s cleaner vehicles objectives.
After discussions, the following recommendations were made on PCFV focus areas:

i. The PCFV continues to focus on the core mandate of the partnership – to promote clean fuels and vehicles through elimination of lead in petrol (focusing on Algeria and Yemen as the last remaining leaded countries); reduction sulfur in fuels to 50 ppm and below; and adoption of Euro 4/IV vehicle emission standards.

ii. There is merit to include related topics to the PCFV campaigns especially those that strengthen the goals of the PCFV and do not require additional resources such as the need for higher-performing lubricants and safer vehicles programs. As countries import advanced vehicles (e.g., Euro 5/V or 6/VI), the need to use the “right oils for the right vehicles” will become more important.

iii. The PCFV would benefit by linking its campaigns to other related programs like the Global Fuel Economy Initiative, TRUE Initiative that could co-fund PCFV activities.

iv. It is important that governments incorporate I&M programs to ensure better air quality through reduction in vehicle emissions. Equally PCFV’s objectives of cleaner vehicles will only be achieved by addressing in-use vehicles through I&M programs. There is need to engage with other partners like CITA involved in this work.

v. In many developing-country cities, 2&3 wheelers contribute more to increasing air pollution compared to 4 wheelers, hence there is merit to include them in the clean fuels and vehicles campaign especially where their numbers are significant.

vi. The PCFV to continue to advocate for a systems approach and implementation of best practices at national/regional activities.

vii. There is need for the PCFV to also focus on compliance mechanisms and support for these at the national level.

viii. Used vehicles will play an integral role in the PCFV work to promote cleaner vehicles. Used vehicles activities also present an opportunity for the PCFV to leverage with a wider network of partners.

ix. The PCFV to explore the possibility of including a used vehicles campaign as part of the PCFV cleaner vehicles activities taking into account the findings from the Used Vehicle Working Group and UN Environment’s Global Report to:
   - Work in close collaboration with automakers on vehicle emission standards;
   - Focus on Inspection and maintenance; and
   - Demonstrate and raise awareness on the cost-benefits of moving towards cleaner and safer used vehicles.