


# Diesel Emissions Conference Asia

Beijing, China  
23-24 March 2010

23 March	
<b>Session 1</b>	<b>China's diesel vehicle industry and emissions reduction technology trends</b>
09:00 – 09:10	Introduction by Integer Research Ltd <b>Chairman:</b> <b>Tim Cheyne</b> , Managing Director, <b>Integer Reserach</b>
09:10 – 09:40	<b>Case study. FAW solutions to China IV (Guo IV)</b> <ul style="list-style-type: none"> <li>• FAW strategy for China IV standards</li> <li>• The development of key technologies</li> <li>• Product development of FAW</li> <li>• FAW innovations</li> </ul> <b>Dr. Jun Li</b> , Director of Technology Center, <b>FAW Group, China</b>
09:40 – 10:10	<b>Case study. Beyond diesel vehicles: analyzing the market demand and potential of new-energy and hybrid vehicles and where the opportunities are</b> <ul style="list-style-type: none"> <li>• Discuss the significance and likelihood of introducing diesel passenger vehicles into the Chinese markets</li> <li>• Analyse growing demand for new-energy and hybrid vehicles in China</li> <li>• Why more attention should be paid to researching energy-saving technologies for conventional vehicles</li> </ul> <b>Fei Feng</b> , Industry Economy Research Dept Director, <b>Development Research Center, State Council, China</b>
10:10 – 11:00	Networking break
<b>Session 2</b>	<b>The implementation of diesel emissions regulations in Europe and Asia</b>
11:00 – 11:30	<b>Panel discussion. What can Asia learn from European experience of diesel emissions reduction.</b>  What key technologies and strategies have been used in Europe for meeting stringent emissions standards? How have European diesel emissions legislations been developed and adjusted according to the test results from heavy-duty vehicles to better meet the real world driving conditions? Our panel of leading European emissions experts will answer these questions and share their valuable experience complying with Euro V regulations and preparing for Euro VI. CAI will also provide an over view of emissions reduction progress in Asia and the main challenges for further reductions.  <b>Moderator:</b> <b>Oliver Dixon</b> , Editor, <b>World Truck Analysis, U.S.</b>  <b>Speakers:</b> <b>Giorgio Martini</b> , Transport and Air Quality Unit, Institute of Environment and Sustainability, Joint Research Center, <b>European Commission, Italy</b> <b>Bruno Tronchetti</b> , CEO, <b>Pirelli, Italy</b> <b>May Ajero</b> , Air Quality Program Manager, <b>CAI-Asia Center, Philippines</b>
11:30 – 12:00	<b>Panel discussion. Looking at emissions legislation in China at a regional level</b> This panel provides you with an opportunity to meet key Chinese policy makers from different provinces and put your questions on the latest legislation developments in their region. For the fast growing Chinese market, you will also have the chance to discuss


	<p>the difficulties of applying some of the main emissions control technologies across China and the government's plans for solving them.</p> <p><b>Moderator:</b> <b>Yan Peng</b>, China Representative , <b>CAI-Asia</b></p> <p><b>Expert speaker:</b> <b>Xuefang Wu</b>, Executive Director, <b>Institute of Environmental Standard, Ministry of Environmental Protection, China</b></p> <p><b>Yan Ding</b>, Director, <b>Vehicle Emission Control Center, Ministry of Environmental Protection, China</b></p> <p><b>Kunsheng Li</b>, Executive Director, <b>Vehicle Emission Control Department, Beijing Municipal Environmental Protection Bureau, China</b> <i>*confirmed in principle</i></p> <p><b>Changhong Chen</b>, Executive Director, <b>the Research Institute of Atmospheric Environment, Shanghai Academy of Environmental Sciences, Shanghai Environmental Protection Bureau, China</b></p>
12.00 – 12.10	<p><b>Brief Introduction by Johnson Matthey, Lunch Sponsor</b>  <b>Johnson Matthey</b></p>
12:10 – 13: 25	<b>Networking Lunch</b>
13:25 – 13:30	<p><b>Afternoon chairman introduction</b> <b>Chairman: David Clark</b>, Business Development Director, Asia Region, <b>Johnson Matthey</b></p>
<b>Session 3</b>	<b>Overcoming fuel quality challenges for the HD diesel vehicle industry in China</b>
13:30 – 14:00	<p><b>Case study: Understanding the supply and consumption of Euro IV diesel fuel in China and the improvements made in diesel quality by Sinopec</b></p> <ul style="list-style-type: none"> <li>• The availability of Euro IV diesel fuel in China and the significance of fuel quality on vehicle emissions reduction</li> <li>• The impact of high sulphur content fuel on SCR aftertreatment devices</li> <li>• Looking at the significant improvements made in diesel quality by Sinopec</li> </ul> <p><b>Xiaodong Gao</b>, Hydroprocess Department Director, <b>Research Institute of Petroleum Processing, Sinopec, China</b></p>
14:00 – 14:30	<p><b>Panel discussion:Tackling Asia's shortage of low sulphur content fuel</b> Sufficient supply of high quality fuel is critical to reduce diesel emissions and meet increasingly tighter standards. Given the shortage of low sulphur content fuel in Asia, what are the best options for HDV OEMs and diesel engine manufacturers to remain competitive and excel in Asian markets? Is biodiesel the answer? This panel will discuss the potential of biodiesel as an alternative. The panel will also consider what options and technologies are available for increasing fuel efficiency as an answer to the fuel quality problem.</p> <p><b>Moderator:</b> <b>Robert Earley</b>, Low Carbon Transportation Program Manager, <b>Innovation Center for Energy and Transport, China</b></p> <p><b>Expert speaker:</b> <b>Hang Zhu</b>, Executive Director, <b>Engine Research Institute of Chery Automobile Co. , China</b> <b>Giorgio Martini</b>, Transport and Air Quality Unit, Institute of Environment and</p>

	<p>Sustainability, Joint Research Center, <b>European Commission, Italy</b>  <b>Sophie Punte</b>, Executive Director, <b>CAI-Asia, Philippines</b>  <b>Jianrong Zhang</b>, Deputy Chief Engineer, <b>The Research Institute of Petroleum Processing, Sinopec, China</b></p>
14:30 – 15:00	<p><b>Case study: Fuel efficiency: the key to reducing air pollution and diesel emissions in China, India and ASEAN states</b></p> <ul style="list-style-type: none"> <li>• Trends in vehicle growth and diesel consumption in China</li> <li>• Growth in air pollutant and greenhouse gas emissions from diesel vehicles in China</li> <li>• An overview of policies, strategies and equipment available for improving fuel efficiency and reducing diesel emissions</li> <li>• Case study: how trucks in Guangzhou City achieved fuel efficiency and emissions reduction and the implication for other Asian markets</li> </ul> <p><b>Sophie Punte</b>, Executive Director, <b>CAI-Asia, Philippines</b></p>
15.00 – 15.40	<b>Networking break</b>
<b>Session 4.</b>	<b>Best available technology options for Euro IV and V in Asia</b>
15.40 – 16.10	<p><b>Case study: Achieving Euro IV+ Emissions Standards in China's Commercial Vehicle Market</b></p> <ul style="list-style-type: none"> <li>• Examine key technologies for achieving Euro IV</li> <li>• Review emissions control in the CV industry today</li> <li>• Analyze specific market influences on technology adoption strategies</li> <li>• Identify potential paths forward to Euro IV - including most likely scenario</li> </ul> <p><b>Daryl Simon</b>, Managing Director, <b>PACCAR, China</b></p>
16.10 – 16.40	<p><b>The potential of retrofit aftertreatment systems for meeting Euro IV and V in Asia</b></p> <ul style="list-style-type: none"> <li>• PM vs CO<sub>2</sub> – Assessing the relative global warming potential of diesel engines with and without filters compared to spark ignition engines</li> <li>• Health care costs of PM – converting health effects into monetary terms and assessing the health cost benefit of a typical retrofit DPF application</li> <li>• Developments in active and passive retrofit DPF technologies for difficult operating conditions – Low exhaust temperatures, high sulphur content and different driving patterns</li> <li>• Discussing key factors for a successful DPF strategy.</li> </ul> <p><b>Marcus Hausser</b>, CEO, <b>Baumot AG Group</b></p>
16:40 – 17.20	<p><b>Panel discussion. Discussing the progress and suitability of both SCR &amp; EGR for Euro IV</b></p> <p>SCR and EGR are two key technologies used for diesel emissions reduction. What are the current scenarios of using these technologies? Which is more suitable for Asian/Chinese markets? This panel will discuss the benefits of using both and provide you with insights on performance, profitability and fuel efficiency.</p> <p><b>Moderator:</b>  <b>Wu Yongqiang</b>, Editor in Chief, <b>China Truck, China</b></p> <p><b>Expert speakers:</b>  <b>Hai Jin</b>, Chief Engineer, <b>CNHTC, China</b>  <b>Amit Soman</b>, General Manager, Emerging Emissions Business in China and Russia  <b>Cummins Inc., East Asia, China</b>  <b>Xiaoxun Chen</b>, Engine Dept Director, <b>Commercial Vehicle Technical Center,</b></p>

	<b>Dongfeng Motor, China</b> <b>Dehui Tong</b> , Vice General Manager & Director of R&D Center, <b>Weichai Power, China</b> <b>Winfried Doelling</b> , Managing Director, <b>Alantum Europe GmbH</b>
17:20 – 17:30	Chairman's closing remarks
17.30	Conference ends

<b>24 March</b>	
<b>Session 5</b>	<b>The successful reduction of NOx emissions with SCR in Asia</b>
09:00 – 09:10	Morning Chairman's Introduction <b>Tim Cheyne</b> , Managing Director, <b>Integer Research</b>
09:10 – 09:40	<b>Keynote: Case study: The practical application of SCR technology on heavy duty diesel engines in China</b> <ul style="list-style-type: none"> <li>• An overview of vehicle production and emission standards in China</li> <li>• The decisions for EURO IV HD diesel engine technology</li> <li>• Understanding specific problems and solutions by applying SCR technology on urban bus engines</li> <li>• Discussing the influences of diesel fuel, lubricants and AdBlue quality on SCR catalysts</li> </ul> <b>Dr. Qin Li</b> , Senior Technical Advisor to the Chairman, <b>Guanxi Yuchai Machinery Ltd., China</b>
09:40 – 10:10	<b>The Integration of SCR and DPF aftertreatment for future China emissions regulations; the pathway to EU VI and CN V</b> <ul style="list-style-type: none"> <li>• DPF regeneration technologies</li> <li>• SCR system integration of dosing and catalyst</li> <li>• Control of combined SCR/DPF systems</li> <li>• Impact of high sulphur fuel on technology selection</li> </ul> <b>Dr Wolfgang Reuter</b> , Vice President Sales & Engineering, <b>Tenneco, Germany</b>
10:10 – 11:00	Networking break
<b>Session 6</b>	<b>Aftertreatment solutions for future emissions reduction in Asia</b>
11:00 – 11:30	<b>Minimising NOx emissions through exhaust gas aftertreatment systems</b> <ul style="list-style-type: none"> <li>• Advanced diesel aftertreatment technologies to comply with emission standards today and tomorrow</li> <li>• How can our aftertreatment system reduces NOx and particulate matter (PM) to achieve near-zero emissions standards</li> <li>• Opportunities of higher reliability and lower fuel consumption for heavy-duty vehicles</li> </ul> <b>Dr. Xiong Liu</b> , Chief Designer of R&D Center, <b>Shanghai Diesel Engine Co. Ltd., China</b>
11:30 – 12:00	<b>Case Study. Vanadium based SCR Catalyst product update</b> <ul style="list-style-type: none"> <li>• The use of Vanadium pentoxide catalyst system for the meeting HD Euro 4 and Euro 5 emissions norms</li> <li>• Reviewing the emissions of Vanadium in context of some recent test results.</li> </ul> <b>Edmund Hodzen</b> , Chief Engineer, <b>Cummins, China</b>
12:00 – 12:30	<b>European Case study. The successful application of SCR in Europe and what can be learned for use of the technology in Asia</b> <ul style="list-style-type: none"> <li>• Assessing the impact of sulphur, phosphorous and temperature on SCR catalyst durability</li> <li>• Identifying and discussing mechanical factors that can improve durability</li> </ul>

	<ul style="list-style-type: none"> <li>Looking at durability results from European in field experience and the lessons that can be learned</li> </ul> <p><b>Michael Knudsen</b>, General Manager, Automotive Catalysts, <b>Haldor Topsoe, Denmark</b></p>
12:30 – 13:55	Networking luncheon
13: 55 –14:00	Afternoon Chairman's introduction <b>David Fan</b> , General Manager, China Technical Center, <b>Tenneco</b>
<b>Session 7</b>	<b>Reducing CO2 emissions from heavy-duty vehicles in Asia and Europe</b>
14:00 – 14:30	<p><b>Case study: Optimal strategies to reduce CO2 emissions for commercial vehicles</b></p> <ul style="list-style-type: none"> <li>An overview of the current status of efficiency of heavy-duty CVs: increased energy saving enables a further reduction in emissions of CO2</li> <li>Understanding upcoming CO2 emissions and FE legislations in the US, Europe and China</li> <li>Assessing the outlook of the development of green vehicles</li> </ul> <p><b>Dr. Manfred Schuckert</b>, Senior Manager, Business Environment, Commercial Vehicles <b>Daimler AG, Germany</b></p>
14:30 – 15:00	<p><b>Case study:</b> <b>Hyundai-Kia's strategy for CO2 emissions reduction from clean diesel vehicles</b></p> <ul style="list-style-type: none"> <li>Discussing CO2 emissions reduction regulations</li> <li>The development of clean diesel and fuel-efficient vehicles to achieve the CO2 emissions reduction target</li> <li>A review of long-term CO2 emissions-reduction scenarios</li> </ul> <p><b>Dr. Jun Yu</b>, Part Manager, <b>Hyundai-Kia Motors, Korea</b></p>
15:00 – 15:30	Networking break
<b>Session 8</b>	<b>Further fuel efficiency improvements – Hybrids and vehicle design</b>
15:30 – 16:00	<p><b>Case study: Achieving higher efficiency and payload by applying lightweight vehicle design</b></p> <ul style="list-style-type: none"> <li>Understand system boundaries: how vehicles and roads influence each other and how to minimise the damage to both while seeking maximum efficiency</li> <li>Define fatigue life basics: what overloading means</li> <li>Achieve higher efficiency with lower weight: design examples</li> </ul> <p><b>Michael Bayer</b>, Senior Consultant for <b>MAN Nutzfahrzeuge, Lorem Ipsum, Singapore</b></p>
16:00 – 16:30	<p><b>Case study. Yuchai's achievement in the application of hybrid technologies on commercial vehicles</b></p> <ul style="list-style-type: none"> <li>The view of Yuchai on the development of hybrid technology development</li> <li>Yuchai's planning for developing hybrid technologies</li> <li>Predicting the future of applying hybrid technology on commercial vehicles in China</li> </ul> <p><b>Dr. Feng Liang</b>, Deputy Chief Designer, <b>Guangxi Yuchai, China</b></p>
16:30 – 17:00	<p><b>Panel discussion. The potential of hybrids and alternative fuels for future emissions reduction in Asia</b></p> <ul style="list-style-type: none"> <li>Are hybrids a good solution for emissions reduction in Asia? How has the technology developed and how do the cost compare to a conventional diesel vehicle?</li> <li>Is biodiesel an answer to poor quality fuel availability? To what extent is fuel economy improved?</li> <li>Assessing the benefits of natural gas for diesel emissions and GHG reduction. What will the main challenges be in Asia?</li> </ul>

	<ul style="list-style-type: none"> <li>Discussing and comparing emissions reduction, fuel economy, lifecycle and maintenance costs of hybrid, biodiesel and LNG vehicles in real world driving conditions</li> </ul> <p><b>Moderator:</b> Yongqiang Wu, Editor in Chief, China Truck, China</p> <p><b>Speakers:</b> Dr. Haoran Hu, Chief Scientist, Eaton Corporation, U.S. Patric Oulette, CTO, Westport Dr. Feng Liang, Deputy Chief Designer, Guangxi Yuchai, China</p>
17:00 – 17:10	Chairman's closing remark
17:10	End of the conference
17:30 – 19:30	Networking Cocktail Sponsored by Novax 

# Diesel Emissions Conference Asia 2010

## 2<sup>nd</sup> Annual AdBlue® Forum

Beijing, China  
25 March 2010

25 March	
<b>Session 1</b>	<b>Understanding the importance of AdBlue® quality and quality standards in Asian markets</b>
09:00 - 09:10	<p><b>Chairman's introduction</b></p> <p><b>Bjørn Frivik, CEO, Wema</b></p>
09:10 – 09:40	<p><b>Opening Keynote. European experience: Measuring AdBlue® quality and understanding requirements of AdBlue® infrastructure</b></p> <ul style="list-style-type: none"> <li>The importance of ensuring AdBlue® quality and key lessons learnt in the established European market for AdBlue</li> <li>Understanding the associated audit programme</li> <li>Challenges of developing an AdBlue® infrastructure and how these can be overcome</li> </ul> <p><b>Osten Andersson, Director, Technical Support &amp; HESQ, Yara</b></p>
09:40 – 10:10	<p><b>AdBlue quality sensing – Experience gained with AdBlue/ DEF Sensor technology</b></p> <ul style="list-style-type: none"> <li>Fuel sensor innovation and development</li> <li>AdBlue sensor innovation and development is driven by emission legislation</li> <li>Measuring the quality of the NOx reduction agent</li> <li>Understanding how AdBlue Quality Sensors can reduce your emissions and protect your assets</li> </ul> <p><b>Martin Magnusson, Project Manager, Asia, Wema</b></p>
10:10 – 11:00	Networking break
11:00 – 11:30	<b>Case study. AdBlue® quality and AdBlue® application today in the Chinese market</b>

	<ul style="list-style-type: none"> <li>• An overview of AdBlue® standards in China</li> <li>• Discussing the production, supply and demand of AdBlue® for diesel engines in the Chinese market</li> <li>• AdBlue® test result for engines using a test bench</li> <li>• AdBlue® applications on diesel engines?</li> </ul> <p><b>Liyang Yang, Engineer, Yuchai Chemical Material Company Ltd., China</b></p>
11:30 –12:00	<p><b>Case study. The impact of mixing and decomposition of AdBlue® on SCR Performance</b></p> <ul style="list-style-type: none"> <li>• Decomposition mechanism of AdBlue®</li> <li>• Test and simulation of decomposition of AdBlue®</li> <li>• Improvement of NH3 distribution and NOx conversion by mixers</li> </ul> <p><b>Shijin Shuai, Professor of Automotive Engineering Deptment, Tsinghua University, China</b></p>
12:00 –12:30	<p><b>Panel discussion. Ensuring AdBlue® quality in China and other Asian countries</b> SCR is widely accepted as the key technology to meet new diesel vehicle emissions standards in Asia however in order for SCR technology to operate successfully high quality AdBlue® quality is. This panel will invite key stakeholders to discuss progress of ensuring the quality of AdBlue® in major Asian markets. The panel will also discuss new Chinese national standards and look at equipment available to maintain AdBlue® quality? Further discussion points will be ensuring appropriate storage, handling and dispensing of AdBlue®.</p> <p><b>Moderator:</b> <b>Tim Cheyne, Managing Director, Integer Research Ltd., UK</b></p> <p><b>Speakers:</b> <b>Dr. Qin Li, Senior Technical Advisor to the Chairman, Guanxi Yuchai Machinery Ltd., China</b> <b>Kunsheng Li, Executive Director, Vehicle Emission Control Department, Beijing Municipal Environmental Protection Bureau, China</b> <i>*confirmed in principle</i> <b>Tim McBride, Strategy Manager, Sensata</b> <b>Kazu Oikawa, Sales Manager, Sun-A Corporation, Japan</b></p>
12:30 –14:00	Networking lunch
<b>Session 2</b>	<b>Opportunities in the growing Asian AdBlue market and the challenges of increasing its availability in China</b>
14:00 –14:30	<p><b>Current AdBlue® development in China and its impact on SCR technology performance</b></p> <ul style="list-style-type: none"> <li>• Assessing the current Asian markets for AdBlue® and discussing quality and availability issues</li> <li>• Forecasting future demand for AdBlue® and market challenges</li> <li>• The impact of AdBlue® quality on SCR technology performance</li> </ul> <p><b>Xiaoxing Chen, Marketing Manager, KLS Auto Environmental Protection Co., China</b></p>
14:30 –15:00	<p><b>Developments in the European AdBlue® market and the lessons learnt for Asian markets</b></p> <ul style="list-style-type: none"> <li>• How has the European market for AdBlue® developed in recent years</li> <li>• Lessons you can learn to profit in Asian markets from European stories</li> <li>• Analysing the European AdBlue® market structure and how price and profitability are determined</li> </ul> <p><b>Tim Cheyne, Managing Director, Integer Research Ltd., UK</b></p>
15:00 –15:40	Networking break
15:40 –16:20	<b>Panel discussion. Developing AdBlue® supply networks in China</b>

	<p>Establishing a sustainable supply infrastructure for AdBlue® is key to using SCR for reducing emissions. However, there are many logistical difficulties in developing such supply networks in a country like China. This panel will look at current progress and operational issues of developing a distribution network. You will also have the opportunity to discuss with panel members where the business opportunities are in increasing the availability of AdBlue throughout China.</p> <p><b>Moderator: Tim Cheyne, Managing Director, Integer Research Ltd., UK</b></p> <p><b>Huat Low Kim, Commercial Director, Industrial (Asia Pacific), Yara Sinochem Environmental Protection Co., China</b>  <b>Jian Qin, Sales Director, KLS Auto Environmental Protection Co., China</b>  <b>Kunsheng Li, Executive Director, Vehicle Emission Control Department, Beijing Municipal Environmental Protection Bureau, China</b> <i>*confirmed in principle</i>  <b>Dehui Tong, Vice General Manager &amp; Director of R&amp;D Center, Weichai Power, China</b>  <b>Guimeng Luo, Director, Yuchai Chemical Material Company, China</b></p>
<b>Session 3.</b>	<b>Driver Education</b>
16:20 –16:40	<p><b>Fundamental education for truck drivers in China to ensure the proper handling and usage of AdBlue®</b></p> <ul style="list-style-type: none"> <li>• How to select specialist AdBlue® equipment and give truck drivers the essential knowledge of how to properly handle AdBlue® when refilling.</li> <li>• Understanding contamination issues of AdBlue®</li> <li>• Discussing the educational challenge issues of AdBlue®</li> </ul> <p><b>Cunlin Guo, General Manager, Beijing Yili Fine Chemical Co. Ltd, China</b></p>
16:40 –16:50	Chairman's closing remark
16:50	Conference ends