



technology & innovation

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**natural refrigerants**

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3 - 5 February 2014 in Tokyo

### Very latest "Eco Cute" innovations from HVAC&R Japan 2014

31 January 2014

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In Japan, the "Eco Cute" hot water heat pump using CO<sub>2</sub> as the refrigerant has been a run-away success over the past decade, with 4 million Eco Cutes installed and annual sales settling at between 400-500,000 per year. Despite being an established technology leading Eco Cute manufacturers continue to innovate, with many leading brands showcasing their latest Eco Cute technologies at HVAC&R Japan 2014, organised on 28 to 31 January, at Tokyo Big Sight.

**Mayekawa:** The latest innovation from the Japanese company to be launched at HVAC&R Japan was the CHRIS, a new desiccant dehumidifier using CO<sub>2</sub> heat pump technology, with a coefficient of performance (COP) of 6. The CHRIS will also be presented at shecco's ATMOSphere Asia 2014 conference on 4 February.

Also on display was the **Unimo AWW**, an air and water heat source CO<sub>2</sub> heat pump (Eco Cute) with an automatic heat source switch. The heat pump has a COP of 4.2, designed to provide a constant supply of hot water in large volumes.

**Panasonic:** At one of the trade fair's largest booths, Panasonic exhibited their wide range commercial and domestic eco-cute CO<sub>2</sub> heat pumps, of which they have sold more than 1 million units (cumulative sales). The residential Eco Cutes have four-support stands for added earthquake safety, instead of the originally cost saving three-support stand design:

- The commercial model has a COP of 5.2, and up 4 units can be connected, with a hot water tank total capacity up to 1680l.
- The KUG residential units with heat recycling for improved efficiency
- The HE-KU37GQ residential unit



#### Related articles

[Step change in Japanese CO<sub>2</sub> commercial refrigeration market – HVAC&R Japan 2014 points towards a bright future for R744](#)

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11 December 2013

### Step change in Japanese CO<sub>2</sub> commercial refrigeration market – HVAC&R Japan 2014 points towards a bright future for R744

31 January 2014

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2014 looks set to be the year that Japanese commercial refrigeration takes off, judging by the number of CO<sub>2</sub> solutions and new players entering the market. The HVAC&R Japan trade fair floor was buzzing with news of new CO<sub>2</sub> solutions, with a booster system showcased by SWC/Carel, and light commercial refrigeration solutions on display by Toshiba Carrier and Mitsubishi Electric. R744.com reports live from the show, organised from the 28-31 January at Tokyo Big Sight.

With leading end users such as Lawson, AEON and The Coca-Cola Company all making commitments to phase-out climate warming HFCs and switch to natural refrigerant CO<sub>2</sub>, and with a wider offering than ever before of CO<sub>2</sub> technologies displayed at the HVAC&R Japan trade fair, 2014 could very likely be the start of a Japanese boom in R744 technology uptake.

#### Toshiba Carrier and Mitsubishi Electric launch CO<sub>2</sub> drinks showcase

Perhaps one of the most exciting developments on show at Japan HVAC&R this year were small plug-in CO<sub>2</sub> cabinets for drinks display suitable for convenience stores and supermarkets. Both systems are air-cooled and thanks to their small footprint complement larger, centralised CO<sub>2</sub> systems.

Newly launched by leading industry players such as Toshiba Carrier and Mitsubishi, these small R744 cabinets have the potential to dramatically change the Japanese commercial refrigeration sector by facilitating the adoption of CO<sub>2</sub> technology in convenience stores.



#### Related articles

[CO<sub>2</sub> solutions vying to be "king of the hill" in old New York - 2014 AHR EXPO latest – Part 2](#)  
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**March 2015, Brussels, Belgium**











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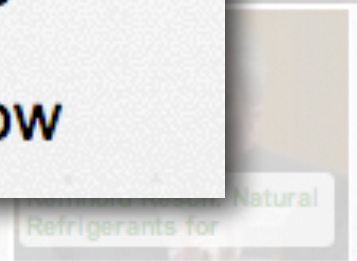
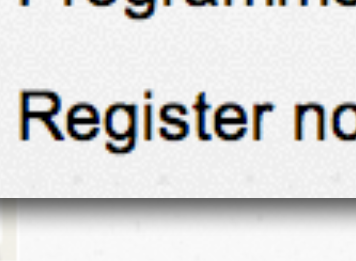
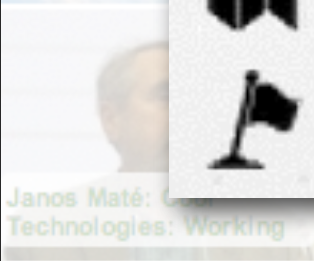
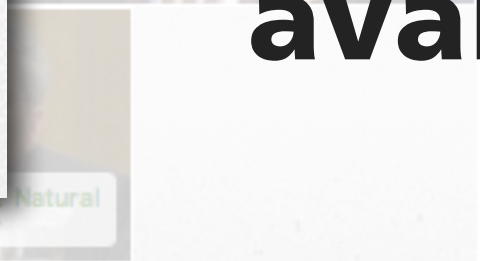
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# ATMOsphere Methodology

*Activities during ATMOsphere Asia 2014*



**Polaroid pictures**  
& *Business cards*



**Panasonic** Reception at the Belgian Embassy  
*Monday, 3 February - 7pm*

# ATMOsphere Methodology

*Activities during ATMOsphere Asia 2014*

## **Panasonic** Reception at the Belgian Embassy

### Buses leave at 6.30pm



*Bus transfer meeting point*



*Entrance to the Embassy*

# ATMOsphere Methodology

*Activities during ATMOsphere Asia 2014*

**Wednesday 5 February - 9:00-17:00**

## Site visit - Option 1

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**Panasonic**

Visit to a flag ship AEON mall in Makuhari opened in December 2013 with total floor area of 128,000 m<sup>2</sup> and 144 CO<sub>2</sub> showcases and AEON's MaxValu supermarket opened in April 2013 in Funabashi featuring Panasonic CO<sub>2</sub> refrigeration systems.

## Site visit - Option 2

Sponsored by

**MAYEKAWA**  
**MYCOM**

Visit to Mayekawa's Moriya factory - the production base of industrial refrigeration equipment - followed by a visit to Asahi Breweries in Ibaraki where the equipment is in operation. The Asahi tour will consist of information about the beer manufacturing process, including its tasting at the end of the tour.



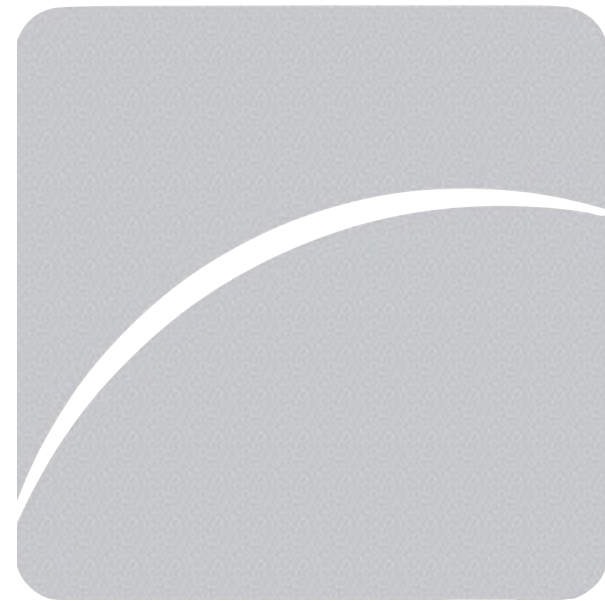


ATMOsphere team will produce a report summarizing ATMOsphere Asia 2014 presentations, data and discussions to be sent to ATMOsphere Asia participants by the end of next week.

Participate to the discussion on Twitter by tagging your tweets with the hashtag

**#ATMOAsia**







# Program

*3 February 2014*




# Program

Monday, 3 February | morning

| WELCOME & INTRODUCTION |  |
|------------------------|--|
| 09:45                  | <p><b>Marc Chasserot</b>, <a href="#">shecco</a>, Welcome speech and introduction</p> <p><b>Pega Hrnjak</b>, <a href="#">University of Illinois</a>, Natural Refrigerants in different applications</p>  |
| POLICY SESSION 1       |  |
| 10:15                  | <p><b>Chair: Marc Chasserot</b>, <a href="#">shecco</a></p> <p><b>Kazuhiro Takahashi</b>, <a href="#">Ministry of Foreign Affairs (MOFA)</a>, Current development in international discussion on ODS phase-out with low GWP alternative technologies</p> <p><b>Motoyuki Kumakura</b>, <a href="#">Ministry of Environment (MOE)</a>, Regulation and funding policy for promotion of fluorinated gases reduction in Japan</p> <p><b>Alexandra Maratou</b>, <a href="#">shecco</a>, EU F-Gas Regulation, HFC taxes &amp; fiscal incentives for natural refrigerants</p> <p><b>Q&amp;A</b></p>                          |
| 11:15                  |  <p>Coffee / Tea networking break - sponsored by Yamato Corporation</p>   |
| MARKET TRENDS          |  |
| 11:45                  | <p><b>Chair: Nina Masson</b>, <a href="#">shecco</a></p> <p><b>Nina Masson</b>, <a href="#">shecco</a>, Natural Refrigerants - global trends and latest developments</p> <p><b>Kiyoshi Hishitani</b>, <a href="#">Panasonic</a>, History and future prospects for Natural Refrigerant based technology and cold-chain products by Panasonic</p> <p><b>Junya Ichikawa</b>, <a href="#">SANDEN</a>, Sanden CO<sub>2</sub> history &amp; future direction</p> <p><b>Kuniaki Kawamura</b>, <a href="#">Mayekawa</a>, Global solutions for industrial refrigeration with Natural Refrigerants</p> <p><b>Q &amp; A</b></p> |
| 13:00                  |  <p>Networking lunch - sponsored by Mayekawa</p>  |

# Program


Monday, 3 February | afternoon

| FOOD RETAIL PANEL |   |
|-------------------|---|
| 14:00             | <p><b>Chair: Marc Chasserot, shecco</b></p> <p><b>Nina Masson, shecco</b>, World supermarket trends with natural refrigerants</p> <p><b>Shinichirou Uto, LAWSON</b>, Latest developments with CO<sub>2</sub> technology in convenience stores</p> <p><b>Hiroaki Suzuki, AEON</b>, Aeon's activities to expand the installation of natural refrigerants</p> <p><b>Ian Crookston, Sobeys</b>, CO<sub>2</sub> - one retailer's experience</p> <p>Updates from <b>Whole Foods Market</b> and <b>Carrefour</b></p> <p><b>Q &amp; A</b></p> |
| 15:30             |  <p>Coffee / Tea networking break - sponsored by Carel</p>   |











# Program

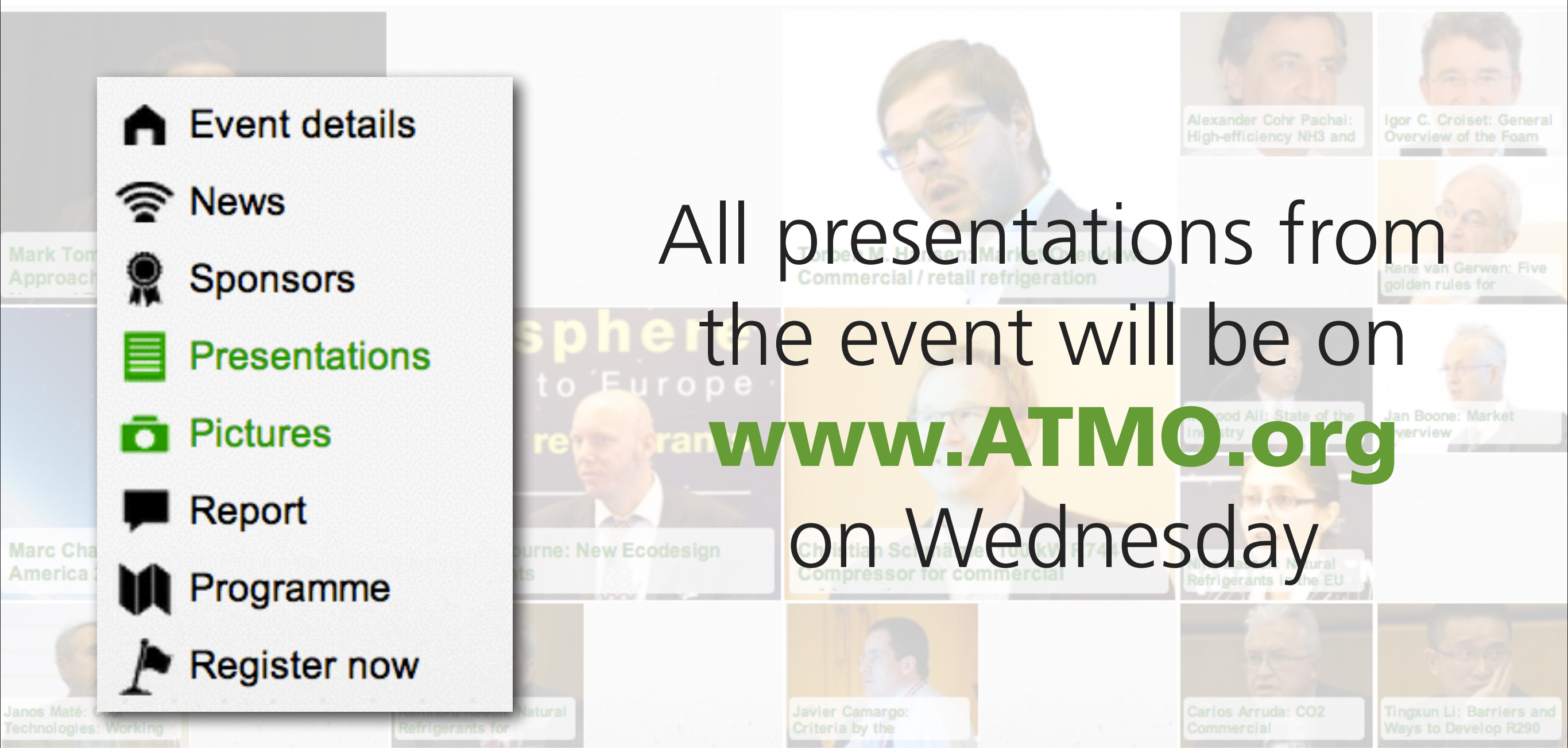
Monday, 3 February | afternoon

| TECHNOLOGY CASE STUDIES - COMMERCIAL REFRIGERATION |   |
|--|---|
| 16:00  | <p><b>Chair: Gaku Shimada, Panasonic</b></p> <p><b>Gaku Shimada, Panasonic</b>, Introduction of energy savings by CO<sub>2</sub> refrigeration systems in SM/ CVS</p> <p><b>Yukio Yamaguchi, SANDEN</b>, Efficient CO<sub>2</sub> refrigeration system</p> <p><b>Sadao Nishimura, Yamato</b>, Ultra Eco-Ice system – innovative solution for Japanese supermarkets</p> <p><b>Katsuhiko Harada, Nihon Netsugen Systems</b>, Development of CO<sub>2</sub> cooling system for supermarket</p> <p><b>Q &amp; A</b></p> <p><b>Michael Englebright, CAREL</b>, Development of CO<sub>2</sub> cooling system for supermarket</p> <p><b>Oliver Javerschek, Bitzer</b>, Evaluation of CO<sub>2</sub> booster system in Asian climate conditions</p> <p><b>Bill Ho, AHT Cooling Systems</b>, Plug-in hydrocarbon showcases - case studies from Japan and South East Asia</p> <p><b>Q &amp; A</b></p> |
| 18:00  | <p>Concluding remarks &amp; transport to Embassy</p>  |
| 19:00  | <p> <b>Networking reception at the Belgian Embassy - sponsored by Panasonic</b></p> <p>Dinner speech by <b>Christophe de Bassompierre</b>, his Excellence the Deputy Ambassador to the <b>Embassy of Belgium in Japan</b> and <b>Yasuhiro Shibata</b>, President at <b>Panasonic ES Commercial Equipment Systems</b></p>   |



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the event will be on  
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on Wednesday



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