

## CMS FORUM ACHIEVEMENTS 2003

The CMS Forum has achieved many of the goals set in its fourth year of operation. These accomplishments include: recruited seven new members, convened two successful CMS workshops, introduced CSP and the CMS business model to a wide variety of interested stakeholders in several industries and internationally, and conducted extensive outreach through various publications, conferences, and targeted presentations.

A set of priority activities for CSP and the CMS Forum was agreed upon by the Executive Committee in December 2002. A summary of achievements is outlined in the table below with a full description of achievements following the table.

PRIORITY ACTIVITIES	COMPLETED
1. Continue communications campaign: <ul style="list-style-type: none"> <li>a. Outreach to key multipliers (e.g., mgmt. consulting firms, trade associations)</li> <li>b. Targeted placement of articles and strategic presentations at conferences and trade associations</li> <li>c. Continue to upgrade website and promote the CSP Manual and Industry Report.</li> </ul>	1. Communications highlights: <ul style="list-style-type: none"> <li>a. Directed outreach to Asia, Europe, universities, and the pulp and paper, automotive, aerospace, and air transport sectors</li> <li>b. Completed comprehensive 2003-2005 Communications Plan</li> <li>c. Published or contributed to 4 articles and spoke at 11 conferences.</li> <li>d. Published three quarterly newsletters</li> </ul>
2. Recruit new CMS Forum members	2. Recruited 7 new members: 2 customers (Hyundai Motor Company and United Technologies Corporation), 4 CMS providers (AVChem, Castrol Industrial North America, Chemico Systems, and Quaker Chemical Corporation), and 1 academic/government (The Society of Tribologists and Lubrication Engineers).
3. Update CMS Forum Strategic Plan	3. Completed 2003-2005 Strategic Plan.

PRIORITY ACTIVITIES	COMPLETED
4. Engage CMS Forum members in committees and increase networking	<p>4. CMS Forum committees included the following:</p> <ul style="list-style-type: none"> <li>a) Strategic Plan committee</li> <li>b) Communications committee</li> <li>c) Automotive benchmarking committee</li> <li>d) Air Transport benchmarking committee</li> <li>e) Committee on the 2004 Singapore conference</li> </ul> <p>Networking opportunities were provided both through these committees and at all workshops.</p>
5. Convene 2 workshops	5. Completed. (London, UK: February 25 <sup>th</sup> , Pontiac, MI: October 23-24)

## 1. Continue Communications Campaign

### A. Directed outreach to key multipliers

CSP and CMS Forum staff held meetings and made presentations to the following key multipliers in 2003:

- Environment Canada (Great Lakes Binational Toxics Strategy)
- Stakeholders in Asia (Singapore Ministry of Manpower; Singapore National Environment Agency; Singapore Economic Development Board; Singapore Confederation of Industries; Korean Institute of Technology's National Cleaner Production Center (KITECH); Korean Ministry of Environment; Keimyung University: Korea; LG Environmental Strategy Institute: Korea.) For more information on Asia, see section 7.
- Stakeholders in Europe (Government of Austria, OECD delegates from six different countries, TNO: Netherlands, The Joannum Institute: Austria, Green Alliance: UK, and Suspronet (an EU Network of experts in the field of product service systems.) For more information on Europe, see section 7.
- US Environmental Protection Agency (Region 9, Region 1, Office of Pollution Prevention and Toxics, and the Office of Solid Waste.)

### B. Continue targeted placement of articles and present at key conferences

Published or contributed to the following 4 articles about CMS:

- Westervelt, Rob. "Chemical Management Services Gains Traction." *ChemicalWeek*, June 4, 2003.
- Kauffman Johnson, Jill and Thomas Votta. "A Strategic Approach to the Chemical Supply Chain: Chemical Management Services." *Global Semiconductor Manufacturing and Technology*, July 2003.
- Sullivan, Tim. "Older and Wiser: CMS Providers Take Stock." *Lubes 'N' Greases*, v.9 i.6, June 2003.

- Votta, Tom and Mark Stoughton. "Implementing service-based chemical procurement: lessons and results." *Journal of Cleaner Production*, v.11 i.8, December 2003.

Presented at 11 conferences (CSP Staff and/or CMS Forum Members)

- Great Lakes Binational Toxics Strategy: Integration Workgroup Meeting, February 2003
- CSP and Green Alliance CMS workshop in the UK, February 2003
- UC Merced: Conference on Building and Operating Sustainable College and University Campuses in the 21st Century, April 2003
- TAPPI 2003 International Environmental Conference and Exhibit, May 2003
- SusProNet: Sustainable Product-Service Systems, June 2003
- RCRA National Meeting, August 2003
- Western Regional Pollution Prevention Network Fall Conference, October 2003
- CSP workshop in Pontiac
- Sustainable Innovation '03: Towards Sustainable Product Design 8, October 2003
- SESH/DTSC Mini-conference, November 2003
- Austrian Conference on Environmental Impacts of the Chemical Service Industry, November 2003

**C. Continue to upgrade website and promote the CSP Manual and Industry Report**

CSP's website continues to see a large volume of traffic, averaging between around 3,000 visitors to the site per month (as compared to 1,200 visitors per month in 2002). The CMS Forum site also receives a fair number of visitors, averaging 1,200 each month (as compared to 700 per month in 2002). The site is constantly being upgraded with new articles, conferences, tools, and case studies.

Continued *The CMS Insider* quarterly e-newsletter

- The newsletter is distributed via email to approximately 650 subscribers. Average viewing rates are: 49% open the newsletter and 26% click through to the CSP or CMS Forum website.

**2. Recruit New CMS Forum Members**

The CMS Forum attracted a total of 7 new members in 2003, bringing the total membership roll to 22 members.

- Two CMS providers joined at the \$15,000 level: Castrol Industrial North America and Quaker Chemical Corporation.
- Two CMS providers joined at the \$5,000 level: AVChem and Chemico Systems.
- One nonprofit organization joined: The Society of Tribologists and Lubrication Engineers.
- Two customers joined: Hyundai Motor Company and United Technologies Corporation.

### **3. Update CMS Forum Business Plan**

The CMS Forum completed its 2003-2005 Strategic Plan in February 2003. The Strategic Plan identifies current and expected challenges and opportunities critical to shaping and impacting the CMS Forum. These include a growing and diverse membership, a shifting target audience, and a recessionary economic environment. While the overall mission and objectives of the Forum remain the same, there are three strategic areas where the CMS Forum will focus its efforts over the next three years: 1) CMS standardization, 2) communications, and 3) member recruiting.

### **4. Engage CMS Forum Members in Committees and Increase Networking**

CMS Forum members were engaged on a variety of committees throughout 2003, including:

1. Strategic Plan committee
2. Communications committee
3. Automotive benchmarking committee
4. Air Transport benchmarking committee
5. Aerospace benchmarking committee
6. Committee on the 2004 Singapore conference

The Strategic Plan and Communications committees were both shorter-term committees that lasted approximately four months each. The input of Forum members was instrumental in developing both the Strategic and Communications plans. Both the automotive and aerospace committees are ongoing. The automotive benchmarking initiative includes GM, DaimlerChrysler, and Hyundai, and is currently in the process of choosing a type of plant to focus on for their benchmarking study. The air transport committee includes both members and non-members, representing companies like Delta, Northwest, American, United, and several other airlines. That committee has bi-monthly calls examining different aspects of chemical management in their facilities. Additionally, there is a benchmarking committee in the aerospace sector, involving UTC, Rockwell Collins, Lockheed Martin, and Boeing. That committee met after the workshop in October and will continue to meet around select events. The Singapore conference committee is also ongoing, and has had an important role in planning and recruiting for CSP's upcoming conference in Singapore. We look forward to continuing and expanding our committees in 2004, including committees on revising the industry report and planning the fall workshop.

### **5. Convene Two Workshops**

*Chemical Management Services Workshop: Greening the Supply Chain*  
*London, UK – February 25, 2003.*

This workshop, organized in conjunction with the UK organization Green Alliance, brought together 56 representatives from 40 different organizations to hear presentations about the CMS model and its implementation in both the US and Europe. Highlights of the day included case study presentations from GM and Haas TCM, Castrol/Airbus, International E-Chem, the Austrian Environment Ministry, PPG Polska, and Henkel. In the afternoon, a panel discussion

provided a broad forum to discuss the barriers and opportunities for CMS in the UK and Europe.

*Chemical Management Services: The Growing Trend of CMS*

*Pontiac, Michigan – October 23, 2003.*

Hosted by General Motors at their Pontiac Central Campus, this year's annual workshop attracted a total of 89 participants. Attendees heard presentations on different perspectives on CMS throughout various stages of the implementation process. Breakout sessions on international trends, CMS in the automotive industry, expanding the service concept, and supporting CMS in the smaller enterprise explored current trends in the field. The day provided opportunities for participants to engage in discussions about the CMS model and, more broadly, the CMS industry and its trends.

## **7. Additional Activities**

The CMS Forum was able to leverage CSP activity to achieve some of the CMS Forum goals through 1) an initiative to introduce CMS to universities, 2) an initiative to introduce CMS to the pulp and paper industry, and 3) three international initiatives to introduce CMS to Korea, Singapore, and throughout Europe.

### ***1. Educational Institutions Initiative***

The goal of this project is to explore the viability of the CMS model for the educational and research institution setting (based on criteria such as cost and effectiveness). To accomplish this, the project has two main components:

- Case studies: The University of New Hampshire and Dartmouth College were selected for case studies in 2003 based on their leadership in approaching chemical management. These case studies, now completed, will be used to illustrate current examples of "best practice" in chemical management.
- Pilot program: CSP is currently doing pilot programs at both Dartmouth College and the University of California, Merced. These pilots will explore whether a CMS program could more cost effectively facilitate chemical management, including the reduction and elimination of mercury, in an educational setting.

CSP is providing significant support to these institutions to assess their baseline chemical management costs, evaluate their needs, and assist in writing their RFPs (request for proposals) to distribute to their current vendors and other potential CMS providers.

### ***2. Pulp and Paper Industry Initiative***

In 2003, CSP continued investigating the potential of the CMS model in the pulp and paper industry. CSP presented at the annual TAPPI EHS conference in Portland, Oregon in May 2003, met with the AF&PA in Washington D.C., and conducted a number of site visits with leading paper companies. At the end of 2003, CSP entered into discussions with Weyerhaeuser Company and will launch a demonstration project with one of their mills in 2004.

### **3. *South Korea***

In March 2003, CSP launched a CMS initiative in South Korea. CSP received funding from the Korean Institute of Industrial Technology's National Cleaner Production Center (KITECH) in Seoul to introduce CMS to Korean industries. Under this initiative, CSP has conducted a demonstration project with Hyundai Motor Company (HMC), completing a baseline cost accounting assessment at their Ulsan auto manufacturing plant. HMC expects to release an RFP for a CMS program in early 2004. In addition, CSP is also working with scholars at Keimyung University in Taegu, South Korea, to develop their capacity to conduct activities similar to CSP's in order to promote the model in the Korean context.

### **4. *Singapore***

CSP continues to promote CMS in Singapore, meeting with a variety of manufacturing firms, suppliers and logistics providers, and government officials in 2003. CSP is currently coordinating a series of CMS meetings and workshops in Singapore for the week of February 23, 2004. These meetings and workshops will coincide with the Chemical Logistics and SCM World Asia 2004 Conference. In addition, CSP and the CMS Forum will explore potential collaborations with The Logistics Institute - Asia Pacific and the Singapore Ministry of Manpower.

### **5. *Europe***

In 2003, CSP laid the groundwork to deploy CMS in Europe. This was highlighted by three activities -- presentations, proposals and EU team building. The results of the February workshop mentioned above will be highlighted in an upcoming article in Greener Management International. The workshop was highly successful in bringing together CMS Forum members, their European counterparts and UK-based companies. In June of 2003, CSP gave a keynote presentation to SUSPRONET, an EU-sponsored network of companies and experts interested in researching and designing "product service systems". Finally, in November of 2004 in Vienna, CSP helped design and participated in an OECD-sponsored conference looking specifically at chemical management models. CSP also submitted two proposals in 2003. We have been awarded a grant through Yorkshire Forward, a regional economic development agency in the UK, to pilot the model in the region and conduct general education and outreach. CSP also submitted a multiyear grant request to the Sustainable Technology Initiative, sponsored by the UK Department of Trade and Industry. This grant money is currently on hold and we have been requested to re-submit our proposal with a decision expected in 2004. Finally, CSP has used its time in Europe to develop an EU-based team with skills and expertise similar to CSP in North America. The intent is to have the EU team play a similar role as CSP in education, outreach and stimulating market demand for CMS. CSP, along with TNO (Netherlands research institute), Johannum (Austria research institute), Green Alliance (UK policy organization) and InternationalEchem (UK consultancy) met in Vienna in November 2003 and agreed to submit a proposal to the EU for initial funding to establish such an organization and pilot the CMS model in several EU countries. The proposal will be written in 2004.