



The Canadian Energy Research Institute (CERI) will release the following research study in the summer of 2015

Examining the Expansion Potential of the Petrochemical Industry in Canada

The advent of shale gas development in North America has led to a wave of natural gas liquids (NGLs) extraction that has benefitted petrochemical producers across North America. Within the Canadian context, this project will examine the conditions that would potentially lead to expansion of the petrochemical industry. Subject to data availability, this examination will include the prospects for methanol, ethylene and propylene based petrochemicals, as well as gas-to-liquids.

In the summer of 2014, CERI released a five-part series examining Natural Gas Liquids in North America.

All of CERI's research is publically available on our website at **www.ceri.ca**

CERI 2015 PETROCHEMICAL CONFERENCE

Confirmed Participants Include:

Mark Eramo; *Vice President*, Chemical Market Insights • IHS Chemical

David Chappell; *President* • Williams Energy Canada ULC

Graeme Flint; *Vice President*, Olefins Feedstocks • NOVA Chemicals Corporation

Karen Forsythe; *Vice President* • Shell Canada Limited
Managing Partner • Shell Chemicals Canada

June 7-9, 2015 • Delta Lodge at Kananaskis • Alberta

THE MAGAZINE OF CANADA'S CHEMISTRY INDUSTRY

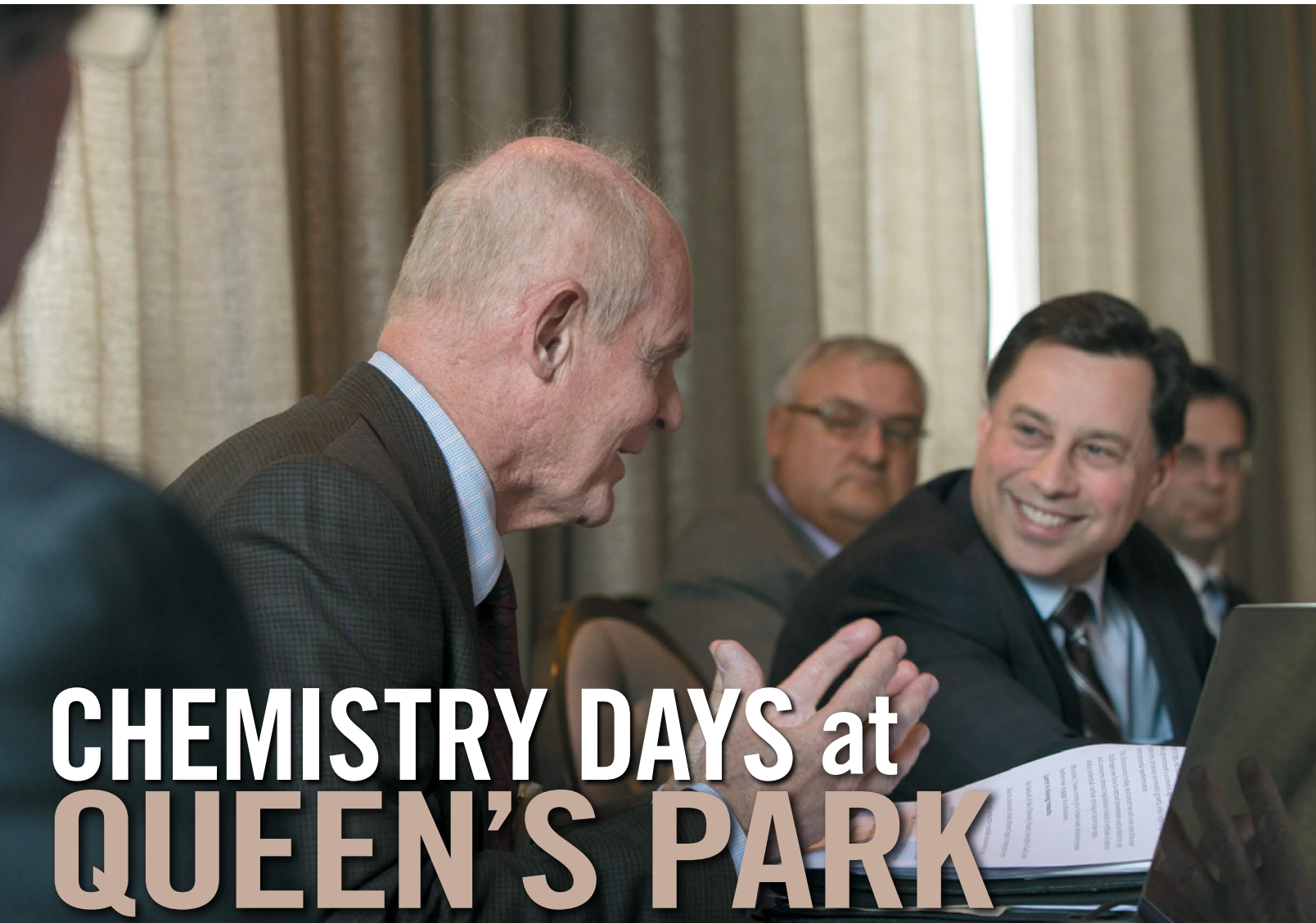
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Catalyst



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ASSOCIATION CANADIENNE DE
L'INDUSTRIE DE LA CHIMIE



CHEMISTRY DAYS at QUEEN'S PARK



Responsible Care® Progress Report

BASF's 150th Anniversary

Argex Titanium, Valleyfield, Quebec



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150 years

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We create chemistry

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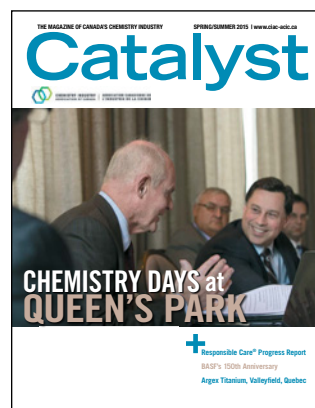
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It's estimated that the world uses over 200 billion paper cups every year. But, depending on local laws and recycling facilities, not all disposable cups deemed recyclable can be recycled. AkzoNobel has come up with a solution. In 2014, the company announced it had developed technology for a more sustainable disposable cup for cold drinks.

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On the Cover: CIAC President and CEO Richard Paton and the Hon. Brad Duguid, Ontario Minister of Economic Development, Employment and Infrastructure.

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By Pierre Gauthier

TO CAP IT ALL OFF

Next steps in creating a cap-and-trade system in Ontario

ON APRIL 13, 2015, Ontario Premier Kathleen Wynne announced that the province will join Quebec and California in applying a cap-and-trade system for carbon emissions. The Government of Ontario sees the cap on emissions as a means to reach its target of 15 per cent reductions by 2020. To that end, Ontario will allocate carbon auction permits to industry. Anticipated revenues from those auctions could produce as much as \$1 to \$2 billion a year. The proceeds are expected to be invested back into the economy to drive growth.

When it comes to putting a price on carbon emissions, the chemistry industry has three points to make. First, the industry in Canada has a proven track record in supporting real action toward environmental sustainability; second, as an industry responsible for contributing \$23 billion to Ontario's economy and directly employing 41,000 Ontarians, it has a vital part to play in creating a prosperous economic future for Ontario. And, finally, third, this industry is ready to play an active role in helping the government to design a cap-and-trade system that will achieve the right balance between economic and environmental goals.

Enough time has been spent on debating the wisdom of a cap-and-trade system versus a carbon tax. The decision is made. Now, the conversation must focus on how the system will be designed to achieve an optimal balance between environmental sustainability and economic-driven growth and productivity. The success of a cap-and-trade system in Ontario will be measured in two ways: by the reduction of emissions; and by the level of new investment in industrial growth. If progress is to be made on both fronts, the system has to be designed thoughtfully, carefully and with due consultation between industry and government.

The chemistry industry is eager to collaborate in that process; indeed, members of the Chemistry Industry Association of Canada (CIAC) have, through Responsible Care®, the association's sustainability initiative, already voluntarily committed to improve all aspects of the health, safety and environmental performance of their products and processes with some impressive results such as a 42 per cent reduction in GHG emissions, since 1992.

As Ontario joins an established cap-and-trade system, the province will likely adopt certain existing parameters. There is no truly "one size fits all," and we cannot afford to ignore the competitive

realities in Ontario. The last thing we want to do is apply more pressure to an already struggling manufacturing sector. Energy-intensive industries, including those within the chemistry sector are vulnerable to competitive leakage, and manufacturers may decide to move production to non-carbon-regulated jurisdictions. That kind of movement will defeat the purpose of the system as, instead of reducing emissions, it will simply shift the problem to another part of the continent or world. Another issue, of course, is the danger of driving electricity costs still higher to the further detriment of industry.

The decision is made. Now we need to work together to ensure that the carbon trading system really does benefit Ontario. Specifically, we need to decide exactly what emissions will be capped; the level of cap measured in million metric tons of CO₂; what cost containment measures can be put in place; and how to distribute allowances, in particular, free allowances such as those that Quebec has already offered to certain industries; as well, we must shape the rules controlling trading, verification, reporting and compliance procedures.

In the early years of the program especially, the Government of Ontario has to consider accommodation for emissions-intensive and trade-exposed industries (EITE) and build political support by offering free permits or credits for early action to key industries; it also has to decide how quickly it can afford to bring the cap down and decrease the number of free allocations. It is absolutely vital to get this right.

The chemistry industry recognizes that there are numerous challenges and opportunities inherent in the shift to a cap-and-trade system in Ontario. To be effective the new system needs to allow for adequate transition time, a climate of regulatory certainty and alignment with other jurisdictions.

CIAC and its Ontario members are dedicated to a sustainable chemistry industry in Ontario and are committed to working with the government to design a cap-and-trade system that supports GHG emission reductions, a competitive business environment, and economic growth and prosperity. By working together, we can design a sound and effective cap-and-trade system and strike the right balance that will provide emissions-driven reductions and economic-driven growth. ●

DELIVERING ON OUR COMMITMENTS



By Bob Masterson

ON APRIL 22, 2015, the Chemistry Industry Association of Canada (CIAC) released its second annual **Responsible Care® Progress Report** (formerly the **Reducing Emissions Report**). For more than 20 years, CIAC members have been reporting their emissions data and advancements made in areas such as workplace and transportation safety, community engagement and waste reduction. Since reporting began in 1992, CIAC members have reduced their overall emissions by 228,500 tonnes — that's 88 per cent. To achieve this, members have:

- reduced discharges to water by 99 per cent;
- reduced emissions of toxins targeted by the *Canadian Environmental Protection Act* by 90 per cent;
- reduced the global-warming potential of their operations by 69 per cent;
- reduced the number of workplace injuries and illnesses by 78 per cent; and

- reduced the production of hazardous waste for disposal by 64 per cent over 1995 levels.

The following profiles show what some CIAC members have done to contribute to these impressive results.

Jungbunzlauer does its Part to Protect Our Waterways Jungbunzlauer

At Jungbunzlauer Canada's manufacturing site in Port Colborne, Ontario, the company is doing its part to make waterways cleaner by reducing the nitrate (NO_3) ion discharged in the process effluent.

Although the amount of nitrate ion discharged in the process effluent is not regulated, as a Responsible Care® company, Jungbunzlauer — one of the world's leading producers of natural and nature-identical biodegradable ingredients — takes extra care to reduce the nitrogen released to the receiving waters because "it's the right thing to do," says Ryan Waines, environmental manager at Jungbunzlauer Canada Inc.

The company's Port Colborne facility's on-site wastewater treatment plant already biologically treats all of the waste streams from the manufacturing of its citric acid

products through a nitrification process. But Jungbunzlauer takes the treatment process one step further.

By adding a step called "de-nitrification," the company significantly reduces the amount of nitrate ion being discharged back into the receiving waters. Since 2003, this extra step has enabled the company to successfully reduce the amount of nitrate ion in their process effluent by 35 per cent.

To learn more, visit Jungbunzlauer Canada at www.jungbunzlauer.com.

Evonik Canada's Award-Winning Water Purifying and Waste Reductions Processes



Evonik Canada's Gibbons, Alberta site has successfully implemented a reverse osmosis (RO) system that has significantly enhanced the facility's water purification and waste reduction programs — and won the company some awards as a result.

The recent reverse osmosis project helped earn Evonik the GE Water and Process Technologies' **Return On Environment Award** — presented to companies that strike a balance between today's environmental challenges and



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industrial demands — and the **Proof Not Promises Award**, given to companies that achieve a minimum operational savings of \$20,000.

The company's Gibbons facility produces hydrogen peroxide, a versatile and environmentally friendly chemical used for oxidation reactions, bleaching processes in pulp, paper and textile industries, wastewater treatment, exhaust air treatment and various disinfection applications.

Traditionally, a resin-based ion exchange system is used to purify the water used at the facility. However, Evonik's new system using RO membranes is not only more cost effective, it's also a safer way to purify water and reduce waste. By implementing this new system, the company has successfully reduced its water use at the facility by 14,600 m³ annually.

"This project is a great example of Evonik's approach to responsible operations," says Mike Barreca, director of production and logistics for Evonik's Active Oxygens business line in North America. "We are very proud of the Gibbons team for taking a leadership

role in Responsible Care® and in environmental excellence."

For more information, visit Evonik Canada at www.evonik.com/north-america.

Building a Culture of Safety at MEGlobal

MEGlobal

As a Responsible Care® company, safety is something MEGlobal has embedded in its corporate culture. And it has paid off. In 2014, the company was recognized by the Industrial Occupational Safety and Health Council (IOSH) for its outstanding safety record at its Fort Saskatchewan and Prentiss Alberta facilities.

For the fourth year in a row, the world leader in the manufacturing and marketing of ethylene glycol received IOSH's **Best Performer (Site) Award - Class 3** — an award given to companies with the best health and safety performance. (Class 3 represents 125 to 999 employees and a minimum of 250,000 to 2,000,000 safe work hours.)

In 2013, MEGlobal had 873,000 safe work hours at its Alberta facilities — 535,000 safe work hours for contractors and 338,000 safe work hours for MEGlobal employees. In fact, the company did not have a single recordable safety incident in 2012 or 2013.

"Safety has always been our number one priority. It is part of our business goals — we believe zero is possible and we are always striving for zero (safety) incidents," says Dale Sandford, MEGlobal's environmental, health and safety technician at the Fort Saskatchewan facility.

For Methanex, Sandford says the goal is simple: "We want everyone to go home the same way they came to work."

To learn more, visit MEGlobal at www.meglobal.biz/environment/2020-goals.

TO LEARN MORE...

For a copy of the full report and to learn more about what CIAC members are doing as part of their commitment to a sustainable chemistry industry in Canada, visit www.ciac-acic.ca



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BASF's 150th Anniversary: Celebrating History and Shaping the Future

From textiles and dyes to crop fertilizers, cassette tapes and catalytic converters, throughout history, BASF has continuously diversified and grown its portfolio to respond to societal needs. Now embarking on its 150th year, the company plans to not only celebrate its rich past but explore opportunities to shape the future.

By Lauren Reid

BASF IS AN acronym for “Badische Anilin und Sodafabrik,” which stands for the products the German chemical company originally manufactured (aniline and sodium carbonate) and the location of its factory (fabrik) in the territory of Baden (Badische).

Friedrich Engelhorn was a goldsmith, entrepreneur and a man with a vision. His ground-breaking idea came after Henry William Perkin, an English chemist, coincidentally discovered the first Mauveine coal tar dye and thus the possibility to use coal tar as a raw material for synthetic dyes. As the owner of a coal gas company in Mannheim, Germany, Engelhorn recognized the opportunities for the coal tar his company produced and set out to form a single company for the entire manufacturing process — from raw materials to intermediates and the dyes themselves.

Soon after its inception in 1865, BASF gained a leading position in the world dyes markets with methylene blue, alizarin and indigo. The synthetic indigo was sold worldwide, especially in China, where jackets dyed with the now famous ‘indigo

blue’ became traditional clothing. Later in the 1960s, indigo blue denim jeans became a wardrobe staple for an entire generation and continue to be popular today.

“The needs of society have changed since 1865 — and BASF and its business operations have changed with them,” says **Carlos Navarro**, president of BASF Canada. “Throughout our company’s history, the keys to our success have remained the same: research and innovation. This is how we at BASF are able to diversify our portfolio and re-invent ourselves to respond to societal needs.”

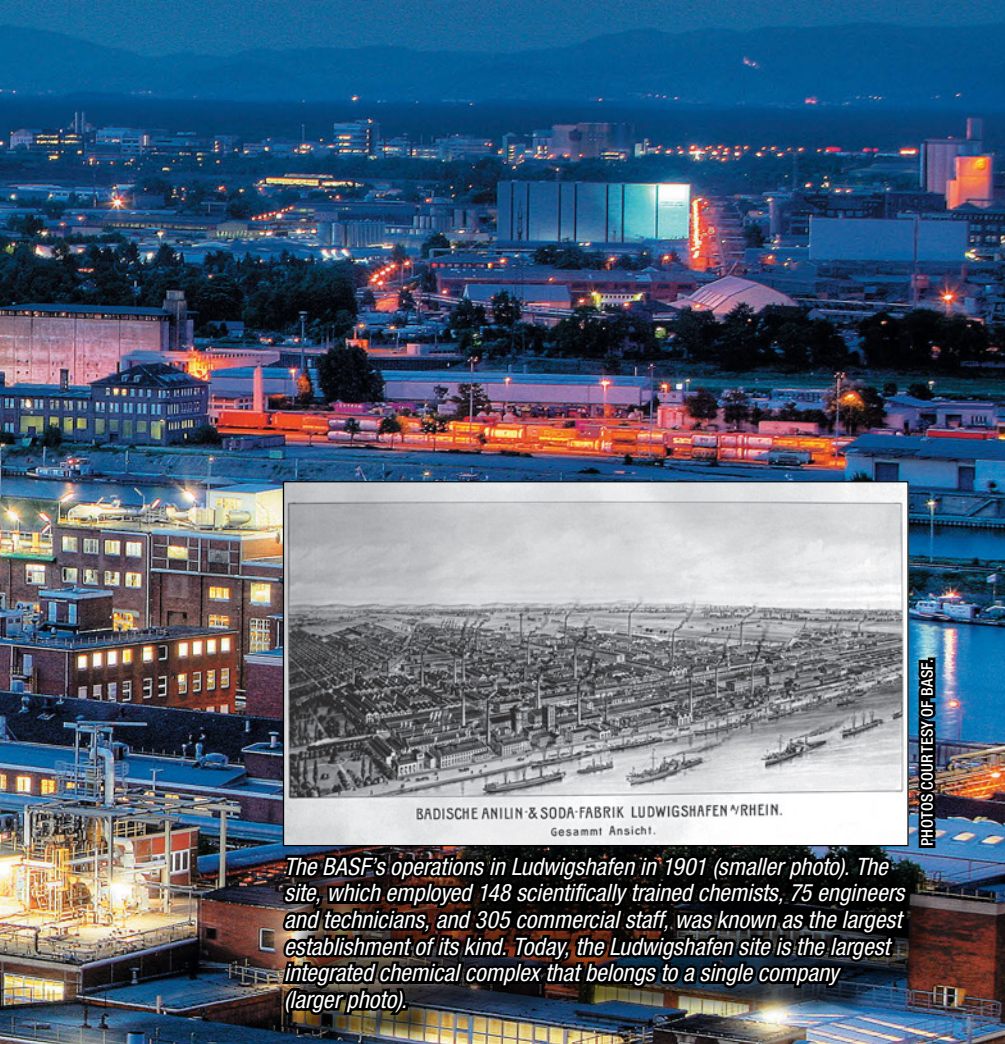
By the early 1900s, reserves of sodium nitrate — used as a crop fertilizer — were running low. There was a need for new sources of nitrogen, and after five years of research and development, a BASF chemist, Carl Bosch, succeeded in converting atmospheric nitrogen on an industrial scale to manufacture synthetic ammonia, which was used to produce nitrogen fertilizers.

“Ammonia synthesis was developed to provide for the nutrition of billions of people — and continues to do so today,” says **Ron Kehler**, Crop Protection business

director for BASF Canada. “BASF is proud to now offer a broad portfolio of crop protection solutions to help growers meet the food and fuel demands of our growing world population.”

Those who were born before the digital age will likely remember one of BASF’s biggest household hits: the magnetic tape. In 1936, a BASF tape was rolling to capture the world’s first live recording of a concert, when the London Philharmonic Orchestra played in Ludwigshafen, Germany. The magnetic tape continued to evolve and in 1969, the Beatles recorded their “Get Back Sessions,” one of the band’s last projects, on a BASF tape. “Although the company sold our global magnetic tape business in the 1990s, many are still holding on to their old BASF tapes with fond memories of the sights and sounds of a different time,” said Navarro.

As the number of vehicles on our roads increased, there was a growing concern over the impact of exhaust fumes on the environment. To respond to the demand for a cleaner exhaust, Engelhard Corporation, acquired by BASF in 2006, achieved a



The BASF's operations in Ludwigshafen in 1901 (smaller photo). The site, which employed 148 scientifically trained chemists, 75 engineers and technicians, and 305 commercial staff, was known as the largest establishment of its kind. Today, the Ludwigshafen site is the largest integrated chemical complex that belongs to a single company (larger photo).

breakthrough in 1976 with the first three-way catalyst. BASF researchers then went on to find the key to an even cleaner solution in 2013 by developing the first FWC™ four-way conversion catalyst for gasoline engines. This new technology filters and removes the most important groups of harmful emissions (hydrocarbons, carbon monoxide and nitrogen oxides) and particulate matter from engine exhaust using just one single component.

Today, BASF is the world's largest chemical company, with 113,000 employees working worldwide, 10,700 of which work in Research and Development. Rooted in the company's corporate purpose, "We create chemistry for a sustainable future," BASF aims to develop innovative and sustainable solutions to global challenges in three major areas: resources, environment and climate; food and nutrition, and quality of life. The company's portfolio serves nearly every industry, ranging from agricultural products, to solutions for construction, consumer goods and automotive.

"Our history shows that chemistry is an enabler for new ideas and solutions. We are

extremely proud of what our company has accomplished globally in the last 150 years. Our focus now is on the next 150 years and how BASF can continue to develop innovative solutions that help to meet the needs of a growing world population," says Navarro. "We must foster a global dialogue and work together to find answers to important questions of the future."

What will the cities of the future look like? Where will the energy that we need come from? How can there be enough healthy food for everyone? These important questions are being discussed right now as part of BASF's 150th anniversary co-creation program. Through the online Creator Space™, a community of industry experts and interested minds are sharing, debating and innovating toward solutions to key global challenges. The company invites stakeholders from across industries and around the globe to join the conversation at www.creator-space.basf.com and help BASF shape the next 150 years. ●

Lauren Reid is a Communications Specialist with BASF Canada.



Carles Navarro was appointed President of BASF Canada on Feb. 1, 2013. Headquartered in Mississauga, Ontario, BASF Canada has 670 employees at 13 production facilities and offices located across the country. Last year, BASF celebrated 60 years in Canada.



The Agricultural Research Station opened in Limburgerhof near Ludwigshafen in 1914, to examine the effectiveness of fertilizers. Extensive trials were performed to determine the effects that fertilizers have on soil and plants and paved the way for BASF's worldwide activities in the field of agricultural chemistry.



As audio tapes or audio and video cassettes, BASF's magnetic tapes were a synonym for home entertainment in the second half of the 20th century. The first magnetic tapes left the Ludwigshafen plant in 1934. They have since given way to digital successors.

Chemistry Days at Queen's Park

ON MARCH 30-31 CIAC hosted a joint meeting of its Ontario Leadership Groups in Toronto. Keynote speakers included Ontario Premier Kathleen Wynne, the Hon. Brad Duguid, Minister of Economic Development, Employment and Infrastructure and the Hon. Glen Murray, Minister of the Environment and Climate Change. For more photos from the event visit www.ciac-acic.ca



CIAC President and CEO Richard Paton and Premier Kathleen Wynne.



Ontario Premier Kathleen Wynne spoke to CIAC members about the importance of the industry to the provincial economy and environment.



Richard Paton, President and CEO, CIAC; Mark Stumpf, Manager, Chemicals, Imperial Oil and Chairman, CIAC Board of Directors; Hon. Brad Duguid; and Larry Masaro, Director, Plant Operations, National Silicates.



Bob Masterson, CIAC's Vice-President of Responsible Care® led a panel on stewardship and competitiveness.



Hon. Glen Murray spoke passionately about his plans for carbon pricing and the need for aligned shared decision-making.



Pictured is Fiona Cook, CIAC Vice-President, Environment, Health and Transportation.

Chemistry 2015: Safe. Secure. Sustainable.

THE CHEMISTRY 2015 Conference took place April 21-22 in Toronto and was one of the largest Responsible Care® events CIAC has ever hosted. More than 160 participants from across the country enjoyed the opportunities to network and participate in sessions on occupational health and safety, process safety, product stewardship and sustainability, and transportation safety.



A packed room listens to conference presentations.



Jim Dixon, Director of Responsible Care®, NOVA Chemicals, welcomed everyone to a reception and tour at the Steam Whistle Brewery.



The CEO Summit on Corporate Responsibility featured J.P. Gladu, President, Canadian Council for Aboriginal Business.



Conference leader, Bob Masterson, CIAC's Vice-President, Responsible Care®.



Archie Kerr, Responsible Care® Verifier.



Angela Ryan, Dow Chemical Canada.

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Roy Bonnell, Argex Titanium President, CEO, Director and Co-Founder, during the company's 2014 Annual General Meeting.

PHOTO COURTESY ARGEX TITANIUM.
ARGEX.CA/EN/ARGEX-MEDIA/MEDIA-GALLERY.

Argex Titanium Investing in Valleyfield, Quebec

An interview with
Roy Bonnell



ARGEX TITANIUM, a specialty chemicals producer, joined CIAC in 2012, not long after the company selected Valleyfield, Quebec as the site for its first manufacturing facility. The company expects to begin production of titanium dioxide, or TiO_2 , within the next two-to-three years. TiO_2 pigment is a fine white powder used in paints, plastics, and paper, as well as in personal consumer products such as cosmetics, sunscreen and toothpaste. TiO_2 is what adds maximum whiteness or opaqueness to products and is one of the main ingredients in paint and plastics. CIAC recently interviewed Ray Bonnell, the company's President, CEO, Director and Co-Founder.

Q

Argex started out as a mining company, what prompted the shift in focus to chemical processing?

RB

A number of years ago we came across a promising process that would allow us to get our titanium dioxide mines into production. Through a company called CTL — of which Argex is a majority owner — we secured the base technology for an innovative solvent extraction process that removes titanium dioxide from ilmenite — an iron oxide mineral — to produce TiO_2 and other saleable by-products. We developed it into a commercially viable process that provides a significant cost and environmental advantage over other legacy TiO_2 products. At full capacity we'll be producing 50,000 tonnes of high purity TiO_2 per year.

Q

Why focus on TiO_2 rather than other chemistry products?

RB

Similar solvent extraction processes are in industrial scale use in the nickel, uranium and rare earth elements industries. We chose to focus on titanium dioxide because it is a \$16 billion industry that hasn't seen a significant advancement in processing technology in more than 60 years.

Q

Your website states that the process for creating titanium dioxide is sustainable and environmentally friendly. Why is that important to Argex?

RB

Being a new company, we were committed to operating in a sustainable manner. Our new process for producing TiO_2 does not use volatile gases, high pressure or high temperatures, and produces virtually no waste.

Q

Argex undoubtedly had a number of sites to choose from, what made you decide to build in Valleyfield?

RB

The Valleyfield region is already favoured by the hydrometallurgical and chemical processing industries. There's access to natural gas, which we need for our initial module and potential expansion; the transportation infrastructure is in place — it's close to a major port, highway, and CN and CSX rail lines. PPG is nearby and we have a technical collaboration agreement with them so their technical team is often on site; there is access to a qualified and experienced workforce, and the local CEGEP¹ produces high-quality chemical technicians. We also have convenient access to a major international airport, being only 40km southwest of Montreal.

Q

In the past year, you've moved your R&D from Ontario to Quebec; what was the reason for that move?

RB

It was always our intention to have the R&D Centre in the same structure as the manufacturing facilities. It helps support staff training and easy implementation of new techniques into the industrial scale facility.

Q

What has the community's reaction been to Argex's arrival and expansion plans?

RB

The City of Valleyfield has been extremely welcoming both at the municipal and port level. The industrial park is very large and close to the port, therefore, not interfering with community life. The possibility of job creation has also been quite impactful.

Q

Why did the company decide to become a member of CIAC?

RB

As a new company, we felt it was important to be a part of the collective voice of the industry. CIAC works closing with both provincial and federal levels of government on issues facing our sector. Also, our manufacturing process and the way we operate as a company are well-aligned with the ethic and principles of CIAC's Responsible Care® initiative and we're proud to be a part of it. ●

For more information about Argex, visit www.argex.ca.

¹ CEGEP is Quebec's post-high school/pre-university college. Students either spend two years preparing for university or three years studying a profession or trade.

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Independent Electricity
System Operator

Dave Emerson, CCC honoured with the CIC/SCI International Award

ON MARCH 26 each year, the Chemical Institute of Canada (CIC) and the U.K.-based Society for the Chemical Industry (SCI) honours individuals who have made outstanding contributions to the chemicals industry. This year, Dave Emerson, President of CCC, and a member of CIAC's Board of Directors, was presented with the CIC/SCI International Award at the CIC/SCI Annual Awards dinner held in Calgary.



CIAC Congratulates the 2015 Health and Safety Award Winners

DURING THE CHEMISTRY 2015 Conference in Toronto on April 21–22, the winners of CIAC's Annual Health and Safety Awards were announced.

The **Excellence in Safety Award** is presented to member-companies that have met criteria for excellence in safety for five straight years. This year's recipients are:

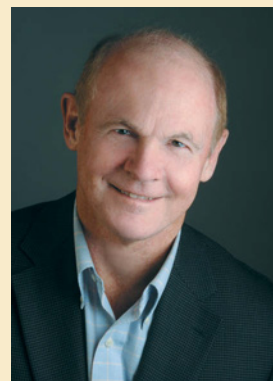
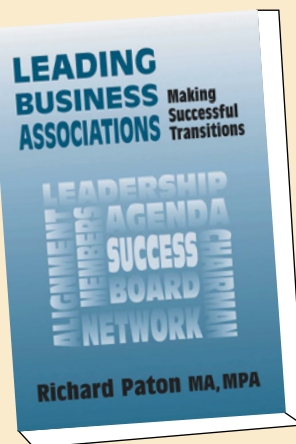
- Evonik Oil Additives Canada Inc.
- PeroxyChem Canada
- Imperial Oil, Products & Chemicals Division
- MEGlobal Canada Inc.
- Nalco Canada ULC.

The **Improvement in Safety Award** is given to member-companies that have met criteria for continuous improvement, and demonstrated improvement in safety three years in a row. This year's winners are:

- AkzoNobel
- Axiall Canada Inc.
- Cytec Canada Inc.

"Since 1990, CIAC members have reduced the incidents of workplace injuries and illnesses by more than 70 per cent," says Bob Masterson, CIAC's Vice-President of Responsible Care®. "And we're proud to be able to recognize their commitment to continuous improvement of health and safety in the workplace."

Sponsored by CIAC's Safety Health Analysis Recognition and Exchange (SHARE) Network, the awards are based on 2013 year-end health and safety data. For more information visit www.ciac-acic.ca.



Leading Business Associations: Making Successful Transitions

ON APRIL 7, Chemistry Industry Association of Canada (CAIC) staff and leaders from many other industry associations gathered in Ottawa to celebrate the launch of Richard Paton's latest book *Leading Business Associations: Making Successful Transitions*. Paton has been president and CEO of CIAC for the past 19 years and will retire at the end of 2015.

Paton describes the book as a "survival guide" to "making it" as an association president, but the lessons learned apply to anyone aspiring to a leadership role. Drawing on his own experience, and the more 20 interviews he conducted with association presidents, Paton details the challenges of leadership transition and shares lessons learned.

Also available: *The Politics of Management: Thinking Like a Manager* (Richard Paton, 2013).

For more information, or to order a hardcopy of the book, contact burnstownpublishing.com. Ebook available from amazon.ca.

THE QUEST FOR A FULLY RECYCLABLE PAPER CUP



IT'S ESTIMATED THAT the world uses over 200 billion paper cups every year. But, depending on local laws and recycling facilities, not all disposable cups deemed recyclable can be recycled. Most are lined with a plastic film to prevent leakage, and that lining needs to be removed before the cup can be properly recycled. The technology to do this is available, but like any enterprise — it takes volume to make a profit, and if there isn't a

regular guaranteed volume, the process isn't viable.

AkzoNobel has come up with a solution. In 2014, the company announced it had developed technology for a more sustainable disposable cup for cold drinks.

The new technology — **EvCote™ Water Barrier 3000** — is made from plant-based oils and recycled PET bottles. PET — or Polyethylene Terephthalate — commonly used in drink bottles and food containers, can be recycled into products such as carpet fiber, fleece jackets, and food and beverage containers.

EvCote™ is made of up to 95 per cent sustainable or renewable content and the barrier coatings protect paper surfaces against

water, grease and moisture. It has numerous applications, including corrugated packaging food packaging.

When cups lined with EvCote™ are recycled, the quality of the paper fiber remains intact — meaning the paper can be reused in the production of other paper products. In some cases, due to the fibers being strengthened by the coating, paper produced from the waste may be stronger than the original uncoated paper.

"The cost of paper represents the highest single cost for cup makers, so recycling the industrial scrap means that there are both cost and environmental benefits," adds Gil Sherman, Market Development Manager at AkzoNobel's Paper Coatings business. The new technology enables paper mills to recapture 100 per cent of the paper waste from the production process that is currently sent to landfill, resulting in significant financial savings. The amount of paper waste in the production process is so vast that it could be used to completely wrap the Empire State Building 6,300 times.

There are 10 products in the EvCote™ line applicable for grease, oil and moisture barrier applications used in packaging for frozen and chilled food and pet foods. One EvCote™ product is already used as a grease barrier for French fry containers. First launched at the 2012 London Olympics, it can now be found in fast food chains throughout Europe.

For more information, visit www.akzonobel.com/news_center/evcote_water_barrier_3000_q_a.aspx.

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