İCACMEMBER SPOTLIGHT

Highlighting ICAC member technologies, markets, and mission



Johnson Matthey

ICAC is comprised of member companies from every corner of the air pollution control industry. Our new Member Spotlight series features various ICAC members and their technologies. In this issue, we are turning the spotlight on Johnson Matthey, a global leader in sustainable technologies.

WHO THEY ARE

Established in 1817, Johnson Matthey (JM) is a global leader in sustainable technologies catalyzing the transition to net zero. JM was the supplier of platinum for the first fuel cell in 1842 and has been innovating fuel cell catalysts and advanced materials ever since. Today, JM supplies chemicals and sustainable technologies for chemical processing, automotive, and pharmaceuticals across the globe.

WHAT THEY DO

As an industry veteran and one of the world's leading technologies suppliers, Johnson Matthey helps carbon-intensive sectors such as energy, chemicals, and automotive companies to decarbonize, reduce harmful emissions and improve their sustainability.

Business Segments

- Clean air (mobile and stationary source applications)
- Hydrogen technologies (primarily hydrolysis H2)
- Catalyst technologies
- Other services: Platinum group metals (PGM) and value businesses

Clean energy and the move to net zero are significant drivers of opportunities for JM. The Clean Air segment within JM's business is focused on air pollution control from a wide variety of applications: transportation, marine, power, and industrial. JM's Clean Air specializes in catalyst technologies for controlling NOx, CO, DPM, VOC, and ammonia, primarily for the transportation sector. Transportation electrification will cause headwinds for all catalyst companies in that market, including JM. With the onset of electrification, JM expects to shift focus to opportunities such as CO2 capture and control, diesel engines, and fuel cells.

FAST FACTS

- Over 205 years of history
- **30+ location**s with 12,600 employees globally
- · U.S. HQ: Wayne, PA
- Specializes in chemicals and sustainable technologies
- Active in ICAC's CEM
 and Domestic Pollutant
 Divisions

ICAC's JM Participation



Carbon Emissions Managmement



JM Johnson Matthey Inspiring science, enhancing life

Focused Air Services

- PEM hydrogen
- · CO2 capture
- Methane emission control (VAM; Oil and Gas markets)
- Hydrogen reforming catalysts
- N2O control
- Diesel emission management

Within JM, the company is transforming and preparing for a future with fewer internal combustion engines. Accelerated by new technology innovation, JM has expanded to carbon capture and methane emissions abatement across sectors. Unlike low-carbon hydrogen, where the technology is ready for scale, sectors such as methane control still require more RD&D before they are ready for full-scale deployment. JM notes that navigating the changing landscape in the regulatory environment and the appropriate use of capital amid new yet unpredictable and volatile opportunities have been some of their biggest challenges.

A Year of Success and Looking Forward

Johnson Matthey continued to have a successful year in 2022. Some highlights included:

- 1. Announcement of a strategic partnership with Plug Power for fuel cells
- 2. Strategic partnership with SFC for making PEM components
- 3. Johnson Matthey was crowned the most desirable employer among foreign companies in Macedonia (site of a Clean Air production facility)

JM's vision for a cleaner, healthier world drives its strategy and mirrors society's need to create a more sustainable future. JM expects to continue to catalyze the net-zero transition by delivering sustainable solutions to customers enabled by world-class technology and market-leading positions.

To learn more about JM's products and to see the latest news and events, visit <u>matthey.com</u>

THE FUTURE

JM, who is already in partnership with the **Department of Energy ARPA-e project** as a selected vendor, is very interested in new strategic partnerships that will advance their technologies at a faster pace.

Connect with Johnson Matthey

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