A stylized illustration of an industrial landscape. It features various factory buildings, smokestacks emitting smoke, and a network of orange and blue pipes. The scene is set against a background of green hills, blue sky with clouds, and a large green circle representing the sun or moon. The illustration is composed of flat, geometric shapes in a vibrant color palette of orange, blue, green, and brown.

Catalytic Advances Program (CAP)

2024

A Membership-Directed Program



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Advancing Catalyst Technologies Together Through CAP

By joining CAP, members benefit by:

Identifying the best routes for development through CAP technical reports and weekly communication

Combining resources with leading companies to jointly investigate the leading technologies in catalytic research

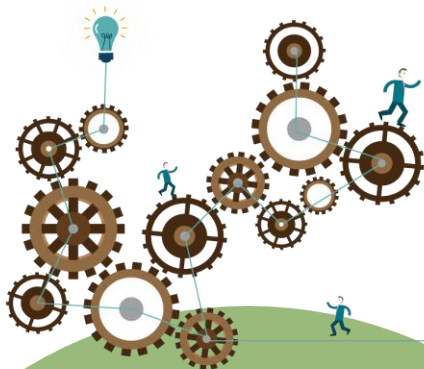
An exclusive relationship among members supported by TCG/TCGR, improving investment and collaborative opportunities

CAP is a unique membership-driven commercial R&D consortium used to leverage research and innovation by sharing resources and experiences to address challenges. Just as it becomes increasingly difficult to push the envelope of technology development, R&D budgets are being constrained. Through CAP, members not only share a common interest in applied catalysis, but they also benefit from shared R&D interests.

There is an increasing diversity of approaches used in refining and chemical processing. Investing in the wrong approaches can be costly; investing too early (or too late) can be catastrophic. With CAP, your resources of technical innovation and industry information are broadened and deepened. The collaborative approach encourages members to contribute study topics, shape deliverables and form lasting partnerships.

Helping Those In The Catalysis Industry For Nearly 30 Years

New in 2024! TCGR has added virtual CAP sessions as a deliverable of the program to stimulate collaboration between members leading to additional opportunities and partnerships.



1995-2000

The Catalytic Advances Program was founded in 1995 to provide insights into the industrial catalyst industry.



2011-2022

Integration of catalyst and process technologies including, scale-up, digitalization and IR4.0.

2001-2010

Members turned their focus to catalyst synthesis and characterization beyond fundamentals.



2023-

CAP was broadened beyond an R&D intelligence resource and began to address manufacturing and operations improvements, regulatory impacts on catalysis and other global issues that influence financial changes in the catalyst industry, along with the addition of CAP virtual sessions.



This program, “for the industry, by the industry,” is designed to provide technical updates on commercially viable advances in catalysis, as well as benchmark commercial advances in catalysis and process technology. CAP provides an interactive community which can be installed corporate-wide/globally to benefit resourcing and collaboration, both externally and internally.



Through CAP, members get a focused R&D platform that provides the essential information and direction needed to optimize the returns from R&D investments.

CAP delivers timely and insightful information and analyses, accessible exclusively to members and protected by confidentiality agreements, including peer-reviewed technical reports, email communications, online virtual sessions and an annual meeting.

2024 Program Members and Value Added Through CAP



IndianOil



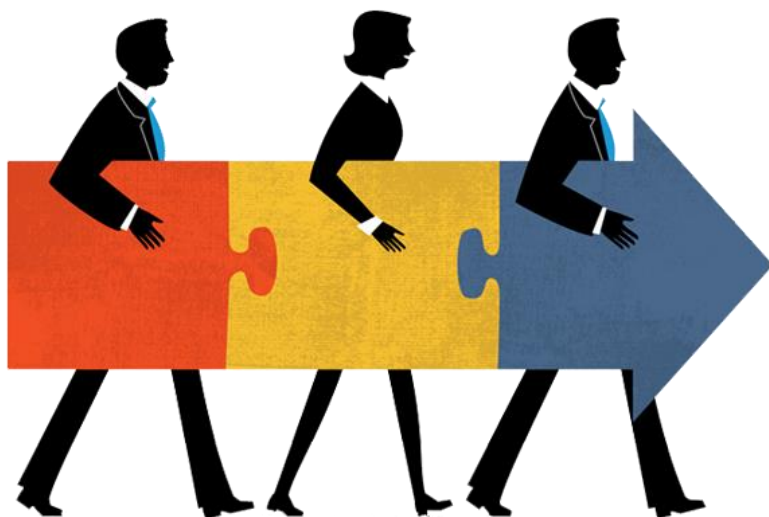
Save time and stay up-to-date
Identify new business opportunities through CAP Communications.

Utilize information from leading scientists
Use CAP technical reports as a resource to research new R&D projects.

Expand you network
Use the opportunity to address the membership in the virtual sessions and the CAP meetings.

The Breadth of CAP

Topics covered under the scope of CAP through technical reports and a weekly newsletter. The topics covered are driven by the input of CAP members.



- ✓ Petrochemicals Catalysts and Processing Technology
- ✓ Refining/Fuel Catalysts and Processing Technology
- ✓ Bio-based Catalysts and Process Technology
- ✓ Hydrogen and Syngas Catalysts and Process Technology
- ✓ Polymer Catalysts and Process Technology
- ✓ Mobile and Stationary Emissions Catalysts
- ✓ Catalysis Role in the Energy Transition and Circular Economy

Program Deliverables

CAP Communications

Stay informed and save time with weekly emails capturing the latest global commercial and scientific catalysis developments with TCGR's value-added insights, observations and recommendations.

CAP Technical Reports

Gain a competitive advantage with three (3) annual state-of-the-art reports, covering R&D and commercial development in catalysis. These exclusive reports are authored, and peer-reviewed by the world's leading scientists. The best part, topics are selected by our members!

Advisory Services

Announcements in the *CAP Communication* can be supplemented by reaching out to us to receive TCGR's reporting on, and analysis of, your questions. We leverage access to TCG's DIALOG GROUP® of over 150+ experts worldwide with advanced industrial experience.

Annual Meeting and Virtual CAP Sessions

Members can participate in virtual CAP sessions, where members can collaborate between each other to increase business development opportunities. Attend the annual meeting to meet CAP members face-to-face to discuss issues and initiate collaborative business opportunities.

ActiProject Communications

As needed, emails containing exclusive, members-only corporate opportunities are offered to share R&D and strategic partnerships for joint technical and/or commercial development in new technologies/businesses. Additionally, CAP members may also create their own *ActiProjects* to solicit to the membership.

Recent Technical Report Topics

Include:

- [Catalysts and Catalyst Manufacturing Methods for Decarbonization](#)
- [Advances in Materials for Catalysis](#)
- [Startups in Catalysis and Catalytic Technologies](#)
- [Catalysts and Materials to Address the Energy Transition: Fuel Cells, Batteries, and Energy Storage](#)
- [Advances in Electrification of Catalytic Processes](#)
- [Advances in Catalytic Science for the Upgrading, Conversion, and Co-Processing of Circular Feedstocks](#)
- [Electrocatalytic Approaches to Traditional Thermochemical Processes](#)
- [Advances in Non-Noble-Metal Catalysts for Reforming and Conversion of Hydrocarbons](#)
- [Advances in Catalysis for Plastic Conversion to Hydrocarbons](#)
- [Novel Potential Catalysts for Oil-to-Chemicals Conversion](#)
- [Advances in Digitalization of Catalysis](#)
- [Catalysts, Catalytic Processes, and Materials for Renewable Energy Use and Storage](#)
- [Advances in Electrocatalysis and Photocatalysis for Chemicals Production](#)
- [Circularity in Chemicals](#)
- [Catalytic Conversion of Syngas to Chemical Products III](#)

Reports underway for 2024:

1. Advances in CO₂ Activation Catalysts
2. Advances in Catalysis for Polyolefin Production
3. Topic #3 to be determined via member ballot

[See the library of reports completed since 2010](#)

Program Options and Fees

The *Catalytic Advances Program (CAP)* is an annual program with two levels of participation for 2024:

- **Full Membership** at \$39,500 per year;
- **Associate Membership** at \$32,500 per year;

Each member company signs a Corporate Membership Agreement, which fully documents the program content and deliverable details.

The **Full** membership entitles the subscriber to all three (3) technical reports produced each year. At the **Associate** level, the company selects two (2) of the three (3) technical reports produced each year.

Once a company has committed to joining the program for two consecutive years (e.g., 2024-25), they may elect to exchange report selections each year for previously completed reports. [See the full report library](#) for available trading options.

Examples of selected program deliverables such as excerpts of completed reports, weekly *CAP Communication* emails, member ballots, actual report Tables of Contents, etc., can be provided upon request. Additionally, testimonials from **CAP members** are also available.



The Catalyst Group Resources (TCGR) is known for its visionary stance in the identification of new technologies that lead to the development of new markets and industries. The clients who join our programs and studies benefit by being leaders in these new opportunities, leveraging competitive advantage.

let's chat

THOUGHTS?
QUESTIONS?

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The **Catalytic Advances Program** is available
on a membership basis from The Catalyst Group Resources (TCGR)

Further details can be obtained at:

<https://www.catalystgrp.com/tcg-resources/member-programs/catalytic-advances-program/>

Follow us on LinkedIn!



*Reach out now to discuss questions,
program options and upcoming initiatives!*