

BUILDING CAPABILITIES FOR

INDUSTRIAL TRANSFORMATION

Capability building for heavy-emitting industries —

CEMENT | STEEL | BUILDING MATERIALS | OTHER HEAVY-EMITTING INDUSTRIES

PUBLIC COURSES

**EXECUTIVE
PROGRAMS**

**IN-COMPANY
PROGRAMS**

**CERTIFICATION
PATHWAYS**

An abstract graphic of a circuit board pattern in light blue lines on a dark blue background, featuring various geometric shapes and connecting lines.

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BUILDING THE CAPABILITIES REQUIRED FOR INDUSTRIAL TRANSFORMATION

■ INTRODUCTION

Industrial organizations are navigating a period of unprecedented transformation. Decarbonization commitments, digital disruption, artificial intelligence, changing workforce expectations, evolving regulatory requirements, and increasing performance pressures are redefining what it takes to succeed. Technology alone will not deliver transformation.

Sustainable success depends on people, capabilities, leadership, and execution.

A³&Co.® Academy was established to help organizations build the capabilities required to navigate this new reality. Drawing on decades of practical experience across cement, steel, building materials, energy, manufacturing, and other heavy-emitting industries, the Academy transforms knowledge into measurable business impact. Whether developing future leaders, strengthening technical expertise, accelerating digital adoption, advancing decarbonization capabilities, or building organizational resilience, A³&Co.® Academy provides practical learning experiences designed for immediate application and long-term value creation.

INDUSTRIAL TRANSFORMATION REQUIRES NEW CAPABILITIES

Organizations today are pursuing:

- ◆ Net Zero Roadmaps
- ◆ Digital Transformation
- ◆ Operational Excellence
- ◆ Workforce Transformation
- ◆ Performance Resilience

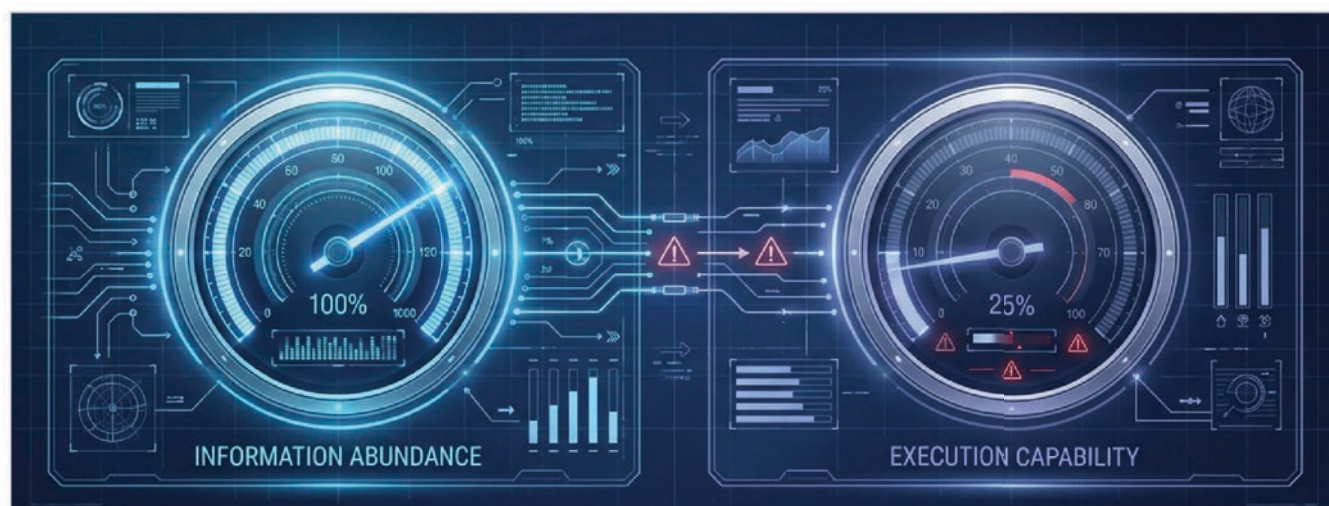
Yet many initiatives fail because capability development does not keep pace with business transformation.

A³&CO.® Academy exists to close this gap.



WHY A³&CO.® ACADEMY

The challenge facing organizations today is not access to information. Information has never been more abundant. The challenge is developing the capabilities required to convert knowledge into business performance.



Information is abundant; execution capability is the true differentiator — and the gap A³&Co.® Academy exists to close.

ORGANIZATIONS THAT DEVELOP CAPABILITIES FASTER THAN THE PACE OF CHANGE WILL CREATE COMPETITIVE ADVANTAGE. THOSE THAT DO NOT RISK FALLING BEHIND. A³&CO.® ACADEMY EXISTS TO BRIDGE THIS GAP.

COMMON CHALLENGES ACROSS HEAVY-EMITTING INDUSTRIES

◆ Skills shortages and capability gaps	◆ Accelerating digital transformation requirements
◆ Decarbonization and Net Zero commitments	◆ Workforce succession and leadership transitions
◆ Increased operational complexity	◆ Cost and productivity pressures
◆ New sustainability and reporting expectations	◆ Rapid technological advancement

WHAT MAKES A³&CO.[®] ACADEMY DIFFERENT

We build capability the way industry builds value — through real projects, proven methodologies, and measurable outcomes.

55+

COUNTRIES
SERVED

150+

CEMENT PLANTS
SUPPORTED

Every Academy program is informed by real advisory, implementation, and capability development experience gained across the global cement and heavy-emitting industries.

01 PRACTICAL, NOT THEORETICAL

Programs built on real projects, real challenges, and real implementation experience. Participants learn from professionals who have operated plants, led businesses, managed transformations, and delivered measurable results.

02 CONSULTING-TO-LEARNING TRANSFER

Our learning solutions are informed directly by advisory, consulting, and implementation projects. The methodologies, tools, frameworks, and case studies have been tested in real business environments.

03 INDUSTRY SPECIALIZATION

A focus on heavy-emitting industries lets us deliver highly relevant learning that addresses sector-specific challenges and opportunities.

04 MEASURABLE OUTCOMES

Our objective is not attendance. It is capability development that translates into improved business performance.

05 APPLIED LEARNING

Every program is designed around practical application, workplace relevance, implementation planning, and measurable value creation.

LEARNING ARCHITECTURE

A³&Co.[®] Academy offers multiple pathways to capability development — from open enrollment to learning embedded directly within transformation projects.

PATHWAY 01

PUBLIC COURSES

Open enrollment programs designed to develop high-demand competencies for professionals across industries.

PATHWAY 02

IN-COMPANY PROGRAMS

Tailored learning solutions customized to organizational objectives, challenges, and strategic priorities.

PATHWAY 03

EXECUTIVE TRACKS

Strategic development journeys designed for executives, directors, and future leaders.

PATHWAY 04

CERTIFICATION PROGRAMS

Structured pathways combining learning, assessment, practical application, and professional recognition.

PATHWAY 05 ADVISORY-LINKED LEARNING

Learning integrated directly into transformation projects



ENTERPRISE-WIDE CAPABILITY DEVELOPMENT

From strategic decision-making to operational execution and business support, every function contributes to industrial performance. A³&Co.[®] Academy develops the capabilities required across the enterprise to improve execution, strengthen leadership, and accelerate transformation.



EXECUTIVE LEADERSHIP

Strategic leaders responsible for business performance, transformation, growth, and organizational direction.

CEO · Managing Director · Plant Director · Functional Executive



OPERATIONS EXCELLENCE PROFESSIONALS

Technical specialists responsible for operational excellence, reliability, quality, and plant performance.

Production · Process · Maintenance · Quality · Quarry



CORPORATE FUNCTIONS

Business functions enabling organizational performance, governance, digitalization, and workforce capability.

HR · Finance · Procurement · Sustainability · Digital

A³&Co.[®] Academy represents the evolution of A³&Co.'s long-standing commitment to capability development. Before the Academy's formal launch, A³&Co. had already delivered extensive learning and capability-building initiatives alongside advisory and transformation projects across the industrial sector.

2,000+

PROFESSIONALS DEVELOPED

100+

PROGRAMS DELIVERED

50+

SPECIALIZED TOPICS

While primarily designed for industrial enterprises, selected programs are also delivered for government entities, regulators, development organizations, financial institutions, and industry associations supporting industrial transformation.

CORE CAPABILITY DOMAINS

Six capability domains form a single architecture for industrial transformation — leadership and operational excellence, supported by decarbonization and digital intelligence, built on people and deep cement technical mastery.



01 CEMENT TECHNICAL MASTERY

02 HUMAN CAPITAL & ORGANIZATIONAL CAPABILITY

03 DIGITAL & INDUSTRIAL INTELLIGENCE

04 DECARBONIZATION & SUSTAINABILITY

05 OPERATIONAL EXCELLENCE

06 LEADERSHIP & BUSINESS TRANSFORMATION

01 CEMENT TECHNICAL MASTERY

Specialized programs developed specifically for cement industry professionals — spanning the full plant value chain from quarry to product.

■ PROCESS & PRODUCTION

Cement Chemistry
Grinding Technology
Kiln Operation
Process Optimization
Alternative Fuels
Environmental Performance

■ QUALITY & PRODUCT

Cement Quality
Clinker Quality Mastery
Laboratory Excellence
Raw Mix Design
Product Performance

■ MAINTENANCE

Mechanical Maintenance
Reliability Engineering
Root Cause Analysis
Planning & Scheduling
Asset Management

■ ELECTRICAL & AUTOMATION

Electrical Maintenance
Instrumentation
Automation Systems
Energy Isolation
Inspection Programs

■ QUARRY OPERATIONS

Geology & Raw Materials

Mining Operations

Quarry Planning

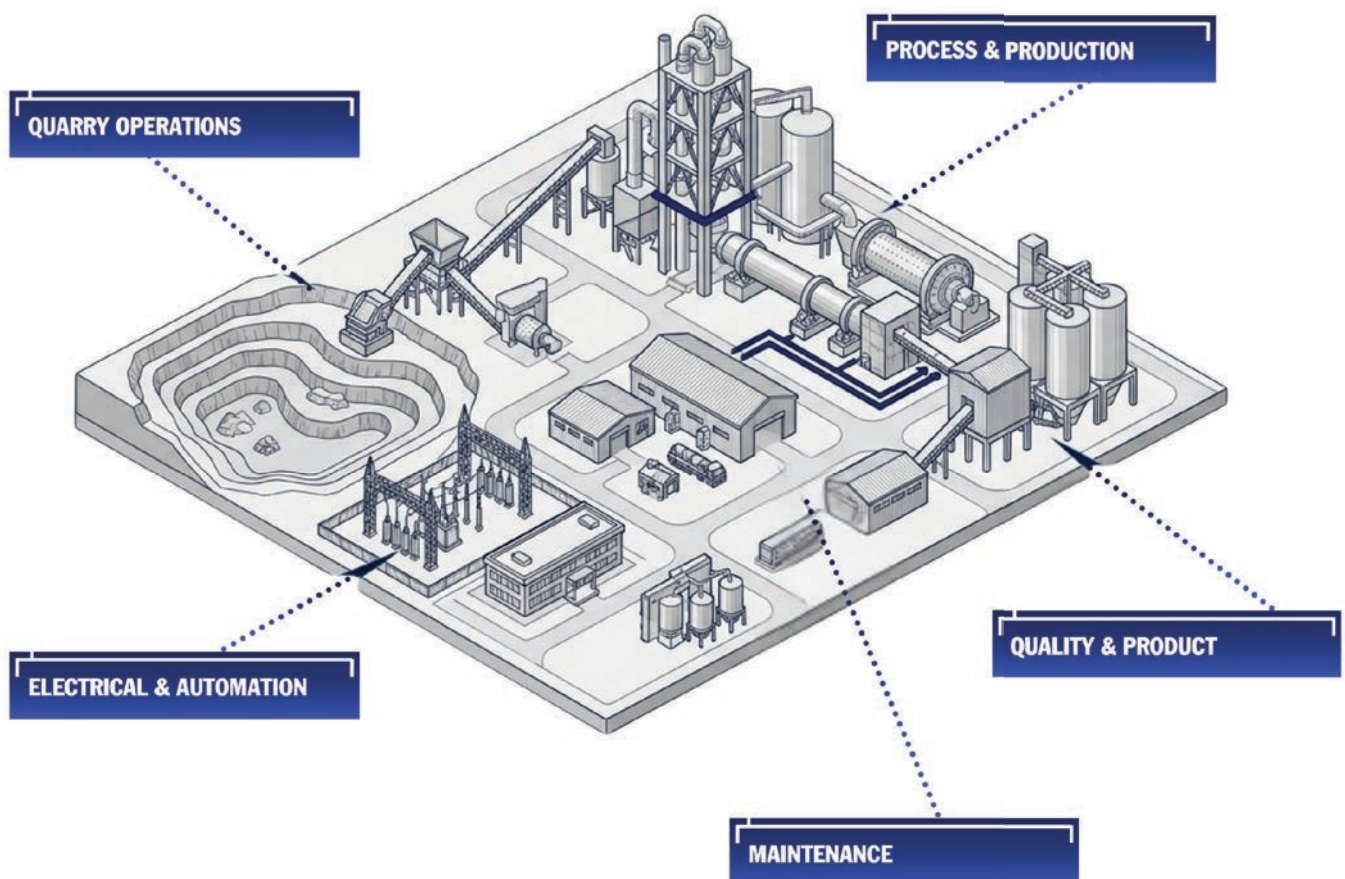
Drilling & Blasting

Process Risk Management

DEEP TECHNICAL SPECIALIZATION

MASTERING THE PLANT END-TO-END SPECTRUM

A³&Co.[®] Academy builds technical mastery across every zone of the cement plant value chain — from quarry operations and process & production to quality, maintenance, and electrical & automation.



02 HUMAN CAPITAL & ORGANIZATIONAL CAPABILITY

Develop future-ready organizations through effective people systems and workforce strategies.

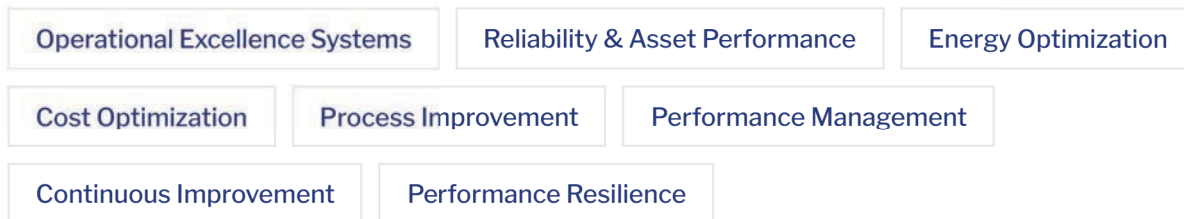
KEY AREAS



03 OPERATIONAL EXCELLENCE

Build capabilities that improve productivity, reliability, efficiency, and organizational performance.

KEY AREAS



THE TWIN ACCELERATORS OF TRANSFORMATION DECARBONIZATION AND DIGITAL INTELLIGENCE

DECARBONIZATION & SUSTAINABILITY

Develop capabilities to navigate the transition toward lower-carbon operations.

Key Focus: Net Zero Strategy, Carbon Accounting, CBAM Readiness, Alternative Fuels, Circular Economy, ESG Integration.

DIGITAL & INDUSTRIAL INTELLIGENCE

Unlock value from data, automation, and digital technologies.

Key Focus: Digital Maturity, Industrial AI, Business Intelligence, Industry 4.0 Applications, Smart Manufacturing, Data-Driven Decision Making.

LEARNING BUILT ON PROVEN INDUSTRY EXPERIENCE

82 Mt

CO₂ PORTFOLIO

105 Mt

CEMENT CAPACITY

23

COUNTRIES

KEY AREAS

04 DECARBONIZATION & SUSTAINABILITY

Net Zero Strategy Development

Carbon Accounting & Reporting

CBAM Readiness

Alternative Fuels & Raw Materials

Circular Economy

Sustainability Strategy

ESG Integration

Carbon Reduction Roadmaps

Industrial Decarbonization Technologies

05 DIGITAL & INDUSTRIAL INTELLIGENCE

Digital Maturity Assessment (SIRI⁺⁺)

Industrial Artificial Intelligence

Business Intelligence & Analytics

Industrial Data Management

Industry 4.0 Applications

Smart Manufacturing

Digital Transformation Roadmaps

Data-Driven Decision Making

06 LEADERSHIP & BUSINESS TRANSFORMATION

Equip leaders to drive strategic change and organizational transformation across the enterprise.

KEY AREAS

Strategic Leadership	Change Management
Business Transformation	Strategy Execution
Governance & Risk	Executive Decision-Making
Organizational Alignment	Stakeholder Management

CAPABILITY MATURITY MODEL

INCREASING CAPABILITY & IMPACT

A³&CO.® CAPABILITY PROGRESSION FRAMEWORK™

FROM FOUNDATION TO TRANSFORMATION LEADERSHIP



Academy programs are designed to move participants through progressively higher capability levels — building individuals and organizations that can lead industrial transformation.

INDUSTRIAL CAREER DEVELOPMENT JOURNEYS

Industrial transformation requires continuous capability development. Our flagship programmes provide structured learning pathways that equip professionals with the knowledge, skills, and leadership capabilities required to excel at every stage of their industrial careers.

01

CPDP – Cement Professional Development Program

DESIGNED FOR

Graduate Engineers • Early Career Professionals • High-Potential Employees

PURPOSE

Build strong technical and operational foundations for future cement professionals.

02

Technical Specialization Programs

DESIGNED FOR

Engineers • Specialists • Technical Professionals

PURPOSE

Develop deep expertise across core cement disciplines and functional specializations.

03

Cement Leadership Program (CLP)

DESIGNED FOR

Supervisors • Future Supervisors • Shift Leaders • Department Managers

PURPOSE

Build the leadership capabilities required to lead people, teams, safety, and operational performance.

04

Plant Manager Excellence Program (PMEP)

DESIGNED FOR

Plant Managers • Deputy Plant Managers • Production Managers

PURPOSE

Prepare operational leaders to manage integrated plant performance, strategy, financial results, and transformation.

05

Industrial Executive Leadership Program (IELP)

DESIGNED FOR

CEOs • Executive Directors • Business Unit Leaders • Country Managers

PURPOSE

Develop executive leaders capable of driving business transformation, growth, governance, and long-term competitiveness.

INQUIRE ABOUT THESE JOURNEYS

CPDP

Cement Professional Development Program

A structured capability development journey designed to grow the next generation of cement professionals — integrating technical mastery, operational excellence, digital transformation, sustainability, and leadership into one comprehensive pathway.

TYPICAL FOCUS AREAS

Quality & Product Excellence	Process & Production
Maintenance & Reliability	Electrical & Automation
Digital Industrialization	Decarbonization & Sustainability
Operational Excellence	Leadership & Professional Effectiveness

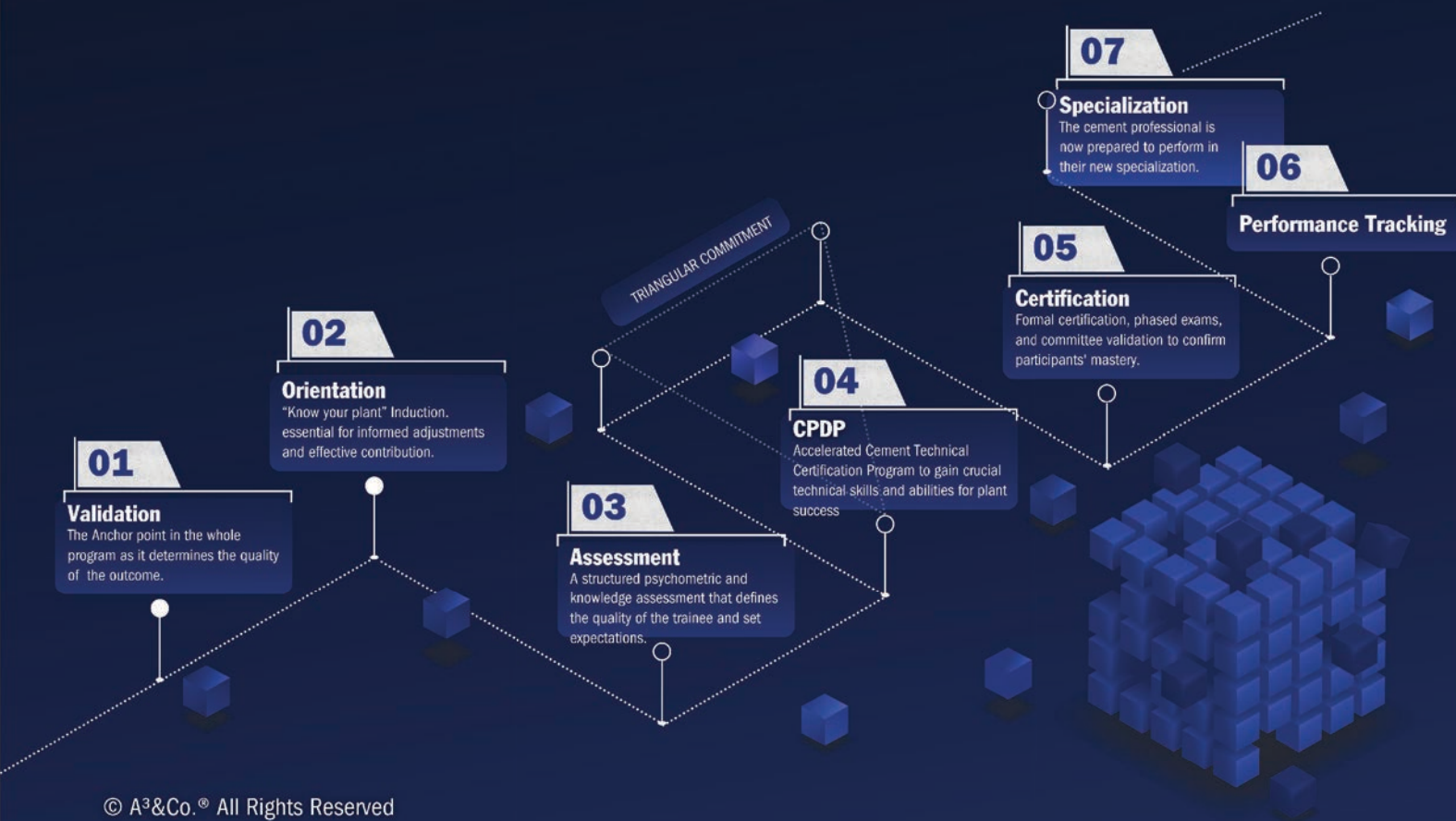
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What makes this program unique is not just its technical depth ... but its alignment with the real capabilities the cement sector needs to thrive in a green era.

SUHAIR ABU SALEM

Chief of People & BD · CPDP Lead, A³&Co.®

THE CPDP ROADMAP



DELIVERY APPROACH

- ◆ Structured learning modules
- ◆ Industry case studies
- ◆ Practical assignments
- ◆ Knowledge assessments
- ◆ Workplace application projects
- ◆ Certification pathway

DESIGNED FOR

Graduate Engineers

Early Career Professionals

Future Leaders

High-Potential Employees

Succession Candidates

FULL COURSE PORTFOLIO

Our learning portfolio spans multi capability domains. Customized learning journeys can also be developed to address specific organizational priorities.

01 Decarbonization & Sustainability	02 Digital Transformation & AI	03 Operational Excellence
04 Energy Optimization	05 Reliability & Maintenance	06 Cement Manufacturing
07 Quality & Product Excellence	08 Quarry Operations	09 Human Capital Management
10 Leadership Development	11 Strategy & Transformation	12 Governance, Risk & Compliance
13 Finance Excellence	14 Procurement Excellence	15 Commercial & Sales Excellence
+ CUSTOMIZED LEARNING JOURNEYS We work globally with our clients to develop learning solutions that enhance workforce capabilities, boost performance, and directly contribute to their bottom line. If you're looking for a strategic, flexible partner to align learning with your business goals, get in touch today to discover how we can create the perfect learning solution for you.		

DELIVERY FORMATS

Learning should be accessible, practical, and aligned with organizational needs.

IN-PERSON

Interactive classroom-based programs facilitated by industry experts.

LIVE ONLINE

Instructor-led virtual programs enabling participation from anywhere in the world.

ONSITE

Practical, hands-on capability development delivered directly at operational facilities.

BLENDED

Combining face-to-face learning, virtual sessions, assignments, coaching, and workplace application.

POST-PROGRAM

Structured implementation projects designed to translate learning into measurable business outcomes.

CERTIFICATION & RECOGNITION

Participants may earn recognition based on program requirements, assessments, project completion, and demonstrated application.

BUILDING THE CAPABILITIES REQUIRED FOR INDUSTRIAL TRANSFORMATION

The future belongs to organizations that continuously develop their people, strengthen their capabilities, and adapt faster than the pace of change.

A³&Co.® Academy combines industry expertise, practical experience, proven methodologies, and applied learning to help organizations develop the capabilities required for sustainable success.

FOR INDIVIDUALS

PUBLIC ENROLLMENT

Explore upcoming public programs and certification opportunities.

[ENROLL AS AN INDIVIDUAL](#)

FOR ORGANIZATIONS

CORPORATE PROGRAMS

Partner with us to design tailored capability development solutions aligned with your strategic priorities.

[EXPLORE CORPORATE OPTIONS](#)



ACADEMY

DEVELOPING PEOPLE. ADVANCING INDUSTRY.

Combining industry expertise, practical experience, and applied learning to build the capabilities required for sustainable industrial transformation.

CONNECT WITH US

✉ academy@a3cement.com

🌐 www.a3cement.com

A³&CO.® ACADEMY
INDUSTRIAL CAPABILITY DEVELOPMENT PORTFOLIO