

## **Job Description**

### **Director – Innovation**

**Organization:** International Center of Excellence in Mining (iCEM)

**Location:** iCEM Office or as required by the organization

### **About iCEM**

iCEM is an autonomous institution established by the Government of Gujarat under the auspices of the Gujarat Mineral Development Corporation. With a vision to be India's leading institute for enabling sustainable mining from societal, environmental and commercial standpoints, iCEM aims to catalyse growth of the mining sector, helping it become more efficient, safe and sustainable.

Recognising the ever-evolving mining landscape and its impact on both economic growth and the environment, iCEM adopts a comprehensive approach that encompasses capacity building and skill development, developing knowledge resources, evaluating best-in-class technologies, validating breakthrough innovations for adoption in GMDC, and forging strategic collaborations with reputed national and international institutions.

To know more, visit [www.icem.in](http://www.icem.in)

Address:

iCEM

Opp. Kensville Golf Resort,

Devdholera Village,

Off. Bavla - Rajkot Highway,

Ta: Bavla, Dist.: Ahmedabad,

Gujarat (India) – 382 240

### **Role Purpose**

The Director – Innovation will lead this vertical end-to-end, building a structured pipeline of innovations from identifying promising innovative solutions (across maturity stages) to pilot deployments, including New Technology/Solution Identification, Scale-up, and Testing/Adoption. An ability to bring together innovation ecosystem, mining and related

expertise, pragmatic techno/commercial feasibility approach, and practical executional capabilities for testing/piloting is going to be critical for the success of this role. Also, quickly understanding relevant processes, including toll gating mechanism within iCEM and GMDC, will allow speedy progression of initiatives.

Through this integrated approach, the Director – Innovation will position iCEM as a national hub for mining innovation, enabling GMDC and the wider mining and mineral sector to adopt advanced, sustainable, and globally competitive technologies/innovative solutions.

### **Key Objectives**

- Build and lead iCEM's innovation ecosystem and platform for mining and allied industries
- Develop a steady pipeline of high-impact technologies and promising solutions
- Bring industries, startups, tech partners, academia and government together
- Help raise funding from Grants / Budget allocation from Government as well as other sources
- Work closely with the GMDC team for verifying suitability of an innovation, mechanism for piloting and appropriate documentation
- Drive successful pilots and full scale deployments
- Position iCEM as a national leader in mining innovation

### **Role Positioning within iCEM Structure**

- Reports to: COO
- Directly Leads:
  - Mgr/Sr. Manager – Head, New Technology Identification
  - Mrg/Sr. Manager – Head, New Technology Scale-up
  - Mgr/Sr. Manager – Head, New Technology Testing/Adoption

***(above 3 sub-functions within the vertical can conceptually be mapped with the TRL framework)***

- Indirectly Oversees:
  - Junior Managers / Assistant Managers

## **Key Responsibilities**

### **1. Innovation Identification (Discovery & Concept Validation):**

- Establish sectoral problem statements with industry partners (starting with GMDC)
- Design and run innovation scouting programs (leveraging existing incubators/accelerators, as well as, independently)
- Startup challenges, hackathons, innovation calls
- Collaboration with domestic and international industry, academia, R&D and tech hubs
- Identify emerging technologies for mining efficiency, mineral processing and beneficiation, water and energy management, health and safety, enterprise risk management, sustainability, ESG, decarbonization, AI/ML, compliance, and others

### **2. Incubation & Nurturing (Prototype to Pre-Commercial Stage)**

- Enable/Provide:
  - Technical mentorship (mining domain expertise, connect with underlying tech providers/OEMs, use cases, prefeasibility)
  - Business mentoring (commercial feasibility, costing/pricing, business model, partnerships)
  - Regulatory & compliance guidance (from the likes of DGMS, MoEF, MoC etc.)
- Facilitate access to labs, mines, datasets, and testing environments
- Enable funding access:
  - State, National and International grants, VGFs, start-up funds
  - Industry co-development funding
  - Investor connects (VCs, strategic investors)
- Develop/deploy systematic framework for mapping progression of solutions/startups

### **3. Validation & Pilot Deployment (Field Testing/Pilot to Scale)**

- Build partnerships with domestic and international mining and related companies, tech partners/OEMs for testing/pilot

- Facilitate real-world pilot deployments in mines (beyond mere coordination)
- Design pilot evaluation frameworks like safety, efficiency, cost-benefit, ESG impact
- Enable commercial understanding/agreements for MVP, PoV and Deployment
- Track and support technology adoption lifecycle

**Outputs:**

- Successful pilot deployments in operational environments

**4. Ecosystem & Platform Development**

- Collaborate with government institutions (likes of Ministry of Mines, DGMS, MoEF, MoC etc.) to align innovation initiatives with policy priorities and leverage incubation, funding, and mission-driven programs that accelerate technology development and deployment in mining
- Establishment of strategic national and international partnerships that translate into tangible outcomes such as joint technology initiatives, pilot projects, or collaborative programs
- Active participation and representation in leading national and global innovation platforms, enhancing iCEM's visibility, industry engagement, and access to emerging technologies and partnerships
- Organize innovation forums, demo days, and investor showcases
- Create knowledge products (whitepapers, blogs, case studies)

**5. Strategy, Governance & Impact Measurement**

- Define innovation approach and roadmap
- Track:
  - Number of qualified possible solutions identified
  - Pilot success rates
  - Large scale deployments
- Build and lead a high-performance team within Innovation vertical and nurture winning relationships with GMDC corporate office, project sites and within iCEM

## Key Competencies

- **Innovative and Analytical Thinking:** Ability to apply creative, out-of-the-box thinking and structured problem-solving to identify and address complex technological and operational challenges
- **Techno-Commercial Acumen:** Capability to evaluate emerging technologies from both technical and business perspectives, ensuring alignment with operational efficiency, cost optimization, and long-term value creation
- **Learning Agility and Policy Awareness:** Strong ability to continuously learn and adapt while understanding sectoral policies and regulatory frameworks to align innovation initiatives with national priorities
- **Innovation Ecosystem Building:** Proven ability to develop and leverage strong domestic and international networks across industry, academia, technology providers, and innovation platforms
- **Execution Leadership:** Capability to translate innovation concepts into practical outcomes by nurturing stakeholder relationships and driving technology initiatives from ideation to measurable business impact
- **Strategic Leadership:** Ability to conceptualize and lead institution-level innovation agendas, positioning the organization as a catalyst for technology-led transformation in the mining and allied sectors

## Candidate Profile

- Leading mid-to-large scale innovation platform (incubators, accelerators, corporate innovation)
- 20+ years of experience in innovation, incubation, venture building, or R&D leadership
- Proven track record of scaling startups/innovation programs and driving pilots and commercialization
- Experience is preferred in mining, metals, heavy industry and deep-tech sectors

## Qualification

- Master's degree or Ph.D. preferred in Engineering or other technical disciplines