



Bridging the Strategy-Execution Gap: CMMI as the Engine for Strategic Success

Scenario Study – Andes Copper Corporation

Dr Pieter van Zyl, Ron Lear June 2025



POLL TIME

- How aware that organizations struggle to implement their strategy?
 - 1 = Not aware at all, 5 = Extremely aware
- How aware are you that CMMI is a capability improvement model?
 - 1 = Not aware at all, 5 = Extremely aware





The strategy-execution problem

• **The problem:** Many organizations struggle to turn strategy into action, creating a strategy is one thing, but actually making it happen is much harder.

Failure rates of 48% reported (@50% objectives) 85% failure (@2/3rds objectives)

Bridges: 20 years Results From Surveying Strategy Implementation, 2020 Harvard Business Review,
McKinsey, and Gartner
suggests up to **78%** of
strategic initiatives fail to
achieve intended
outcomes

Cascade 2025 Strategy Report **70%** of leaders admit they fail at strategy execution.

Cause and solution: Many causes of failure are directly related to a lack (or weakness) of capability to deliver the strategy, **and/or** organizational change management.

CMMI MDDAP VIP program shows impressive results in declining total product recall rate.

CMMI Technical Report 2025: Impressive Performance Results for 2019 to 2024

I am not a betting man, but a 91% performance achievement rate seems like a pretty safe, no-brainer bet Ron Lear





Strategy-Execute Gap Failures

Case	Strategy/Claim	Operational Failure	Possible Capability Failures
New Coke	Reformulate Coke to compete with Pepsi	Consumer backlash, poor market research	Understanding customer needs, Decision-making with data, Oversight of product strategy
Nokia's iPhone Response	Stick with Symbian OS, dismiss iPhone	Slow development, internal coordination issues	Innovation and product agility, Strategic risk awareness, Future-oriented workforce development, Sustained process evolution
WeWork's IPO	Massive IPO for growth, tech positioning	Financial mismanagement, governance issues	Governance and oversight, Risk and business continuity, Organizational discipline, Financial strategy tracking
Uber's Expansion	Rapid global expansion in ride- sharing	Legal battles, toxic culture, regulatory pushback	Ethical leadership and employee empowerment, Regulatory preparedness and resilience, Stakeholder governance, Continuous improvement culture
Boeing to Mars	Beat SpaceX to Mars with SLS	Delays in SLS, Starliner setbacks, operational inefficiencies	Systems engineering execution, Supplier coordination, Cost & schedule control, Organizational learning









From strategy to successful execution

- Step 1: Plan Your Strategy: Start by doing strategic planning using well-known tools like SWOT Analysis, Balanced Scorecard (BSC), Business Model Canvas (BMC), or Porter's Value Chain Analysis (VCA).
- Step 2: Appraise your capabilities using CMMI: Analyze your plan by using CMMI to understand your organisational capability on your key strategic priorities. Use the CMMI model to take a structured look at your strategy and identify strengths, gaps, and opportunities.
- Step 3: Convert appraisal insights into operational capability (execute the strategy): Turn strategy into action, by applying proven methods like Plan-Do-Check-Act (PDCA) to close the appraisal gaps and implement your plan. Also, remember to manage change well and consider the people involved, success depends on them too.





POLL TIME

Which of these strategic planning tools have you used in your role? (Select all that apply)

- SWOT Analysis
- Balanced Scorecard
- Business Model Canvas
- Porter's Value Chain Analysis
- Other tools





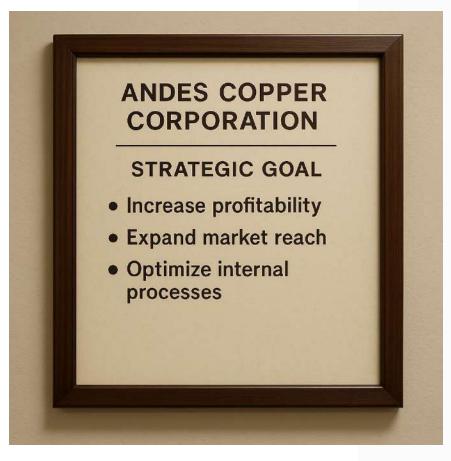
Strategic Planning Methods

- To Plan Your Strategy, you can use popular and proven methods to plan your strategy. Here are some examples:
 - SWOT Analysis: Helps you look at your Strengths, Weaknesses, Opportunities, and Threats.
 - Balanced Scorecard: Connects your big goals to measurable results (KPIs).
 - Business Model Canvas: Shows how your organization creates and delivers value.
 - Porter's Value Chain Analysis: Helps you spot where your organization adds value and where there may be waste or inefficiencies.
- There are many other tools that can work just as well. We're showing these because they're well known and widely used.





Fictitious Andes Copper Mining



- Strategic goal
 - Increase profitability
 - Expand market reach
 - Optimize internal processes
- Challenges
 - High operating costs
 - Water scarcity
 - Aging infrastructure
 - Political and regulatory risk



Click for <u>full case study</u>



SWOT and CMMI CapabilitiesAndes Copper Mining



STRENGTHS

Mature, standardized operational processes contribute to current efficiency levels, despite aging infrastructure and high operating cost.

- Capability Area: Improving Performance
 - Managing Performance & Measurement, Process Management.

WEAKNESSES

Water scarcity risks is prompting a reassessment of resource planning and contingency development to protect production continuity.

- Capability Area: Managing Business Resilience
 - Risk and Opportunity Management, Business Continuity

OPPORTUNITIES

Anticipating surging copper demand in electric vehicles and renewable energy, Andes Copper identified the need for scalable production and dynamic market targeting.

- Capability Area: Planning & Managing Work
 - Work estimation, Planning and Monitored.

THREATS

Community relations posed a potential threat to operational stability, requiring structured engagement and assurance programs.

- Capability Area: Ensuring Quality
 - Process Quality Assurance





Balanced Scorecard and CMMI

Andes Copper Mining

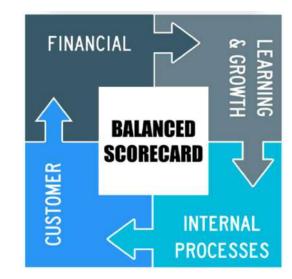
FINANCIAL

Recognizing that optimizing production costs and maximizing returns is vital to profitability.

- Capability Area: Improving Performance
 - Managing Performance and Measurement
 - Process Management
- Capability Area: Managing Business Resilience
 - Risk & Opportunity Management

Speak to a CMMI Appraisal Consultant for guidance

https://cmmiinstitute.com/partners/directory



INTERNAL PROCESSES

A major focus during strategic planning was ensuring streamlined, safe, and sustainable operational processes across all mining stages.

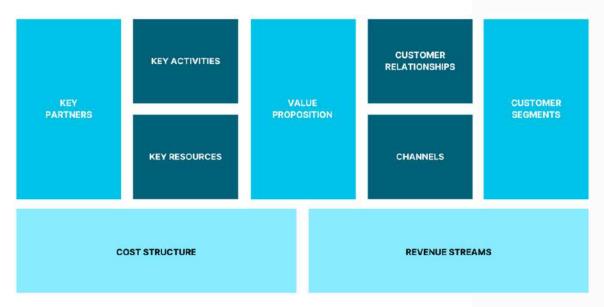
- Capability Area: Improving Performance
 - Process Asset Development
 - Process Management
- Capability Area: Sustaining Habit and Persistence
 - Governance
 - Implementation Infrastructure





The same exercise can be done for

Business Model Canvas



Value Chain Mapping







CMMI Capabilities

How capable is your organization?

Nearly a third of organizations surveyed do not have standard processes in place that enable them to adapt quickly. Executives know improving their key capabilities is critical for continued success.



Do not have a current set of documented processes or job aids that are routinely followed.



Do not have a documented planning process that all projects/departments follow.



Do not have a pathway to develop additional job relevent skills to increase capability or career advancement.



Do no track or monitor progress against documented plans and take corrective action as needed.



Do not align skill and experience requirements for future business needs.

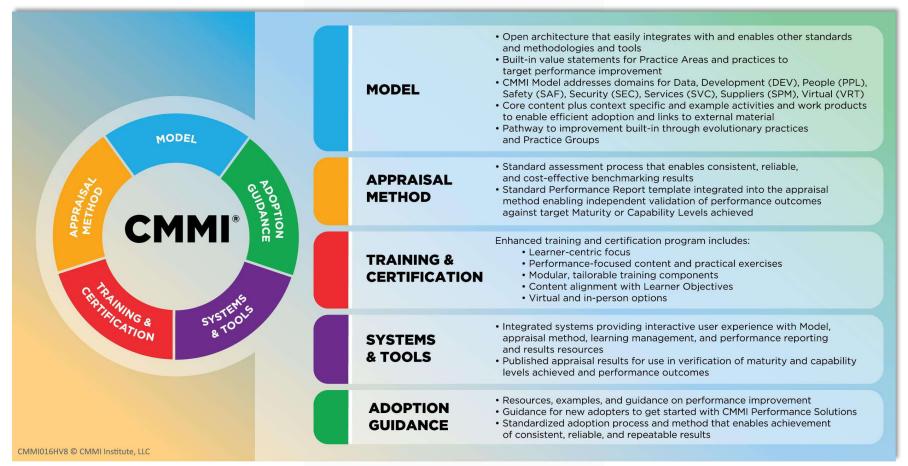
Source: ISACA Capability Survey, December 2024

CMMI014VV4 © 2025 CMMI Institute, LLC





CMMI Performance Solutions – Five Integrated Components in the CMMI Ecosystem







Capability and Maturity Levels are Consistently Defined and Enable Organizations to Consistently Measure Their

Own Unique Journey

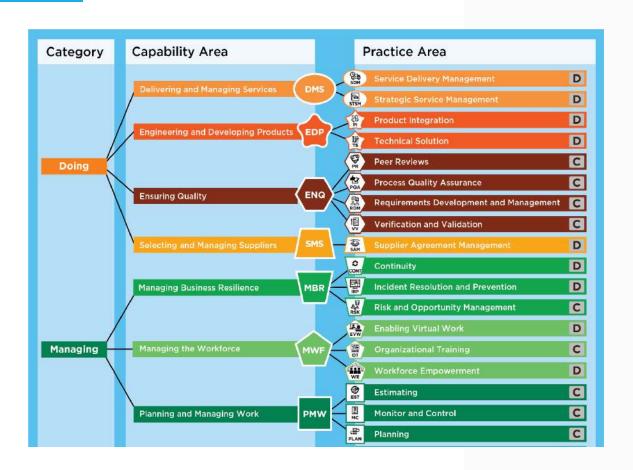
The CMMI includes curated evolutionary best practices that are the gold standard for defining maturity and capability levels and can be consistently adopted by any industry to measure performance.

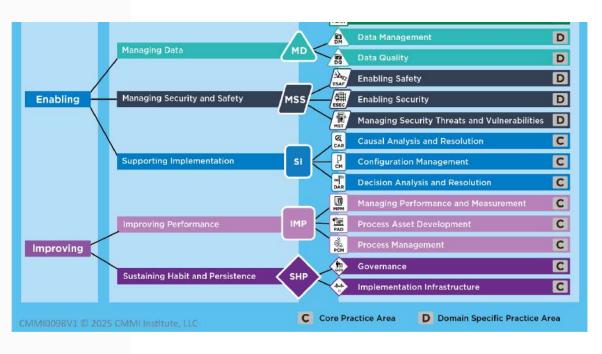






CMMI Capability Areas



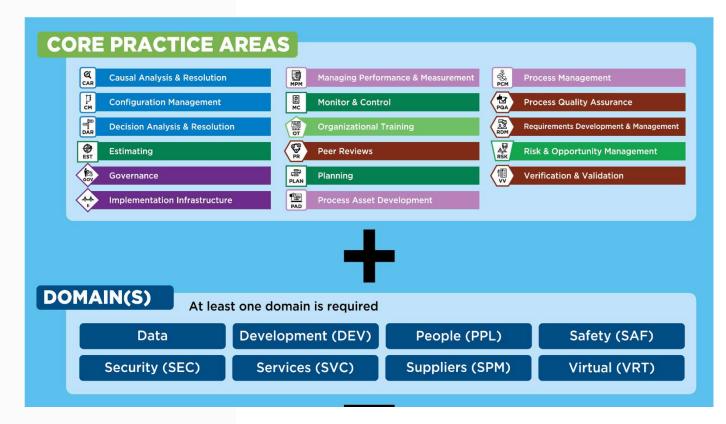






CMMI Domains – Flexible and Customizable

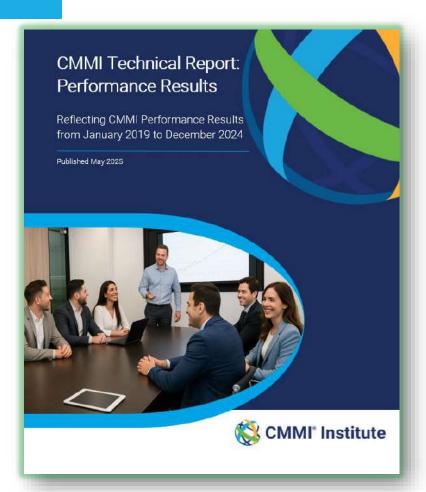
- CMMI covers everything you need, including a proven and solid foundation for effective, safe, and reliable AI capability
- It connects well and easily with many popular strategic planning tools and methods
- CMMI helps you find quickly identify your strengths and weaknesses, and provides best practices to address them
- Put your strategy into action using proven improvement methods
- Keep refining your strategy as you go, using continuous improvement

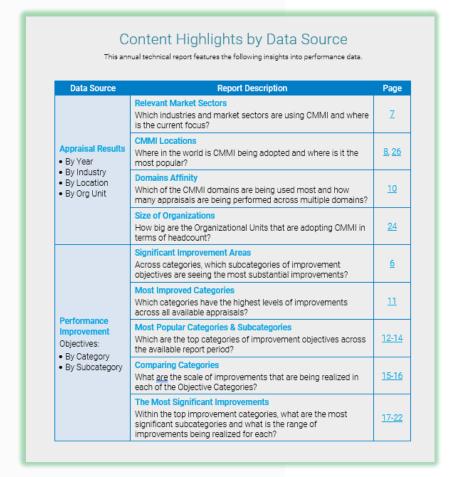






CMMI Technical Report: Performance Results





Released: May 2025

Available in the CMMI Resource Center: https://cmmiinstit ute.com/resource-files/public/cmmi-performance-report-summary





6 Years of Consistent Performance Results

Top Improvement Areas

The following are the top 6 Improvement Categories by Average Rate, cumulative from 2019 to 2024 appraisal results.

• Technical Performance:

On-Time Delivery up 18%

Technical Performance:

Schedule Variance down 15%

Productivity Performance:

Overall Productivity up 24%

• Quality Performance:

Defect Density down 26%

Operational Performance:

Customer Satisfaction up 18%

Productivity Performance:

Project or Solution Productivity up 20%

Exceed Performance Expectations

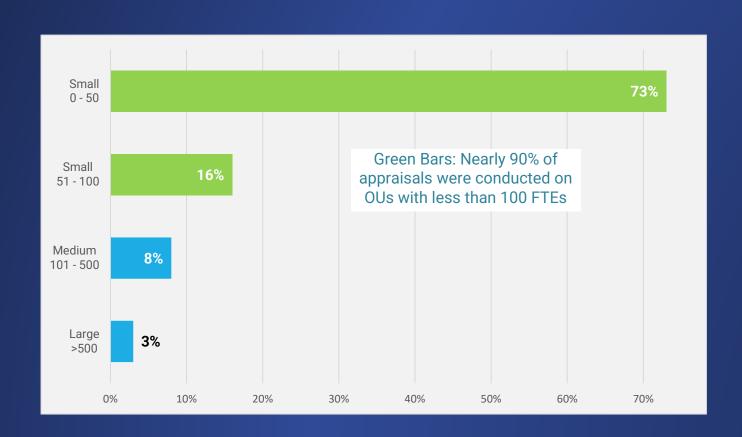
- CMMI adoption enables a proven and effective approach for performance-based improvement and enables innovation and transformation
- CMMI's focus on persistent and habitual performance improvement sets it apart from any other standard or model
- Flexible architecture and an online experience enable tailoring the adaptation of content to customer requirements





CMMI Fits Any Size Organization





- CMMI is flexible, useful, and suitable for small, medium, and large enterprises
- CMMI usage is relevant to and comparable across organizations of all sizes and is especially popular with smaller Organizational Units
- 90% of approved appraisals were conducted on organizations with 100 FTEs or less
- 3% of approved appraisals were conducted on organizations with greater than 500 FTEs





COMING SOON! CMMI - Artificial Intelligence (AI)

- 25+ Members of the Al Working Group
- 5 Packages for Community Review
- 80 Community Reviewers
- 7 Internal CMMI Content Reviewers
- ~100 different companies involved in the development or review of AI material including IBM as the lead AI WG Sponsoring organization
- 130 punchlist items, in addition to AI content
- 200+ Pages of additional content reviewed
- 31 (all) Practice Areas in the CMMI Model will have AI Content
- 138 out of 276 Practices will have AI Content
 - 14 Practices with AI content incorporated into Explanatory Practice content
 - 124 AI Context Specific additions across PAs (~50% of all practices)





CMMI AI Content - Key Strategic Themes - 1

Governance activities play a critical role in any Artificial Intelligence (AI) implementation or use, and steps needed vary based on the approach, such as:

<u>Autonomous Augmentation</u>: Using AI solely to perform specific governance tasks such as "policy by code" where inputs that violate policy are automatically rejected

<u>Verified Augmentation</u>: Implementing AI to perform some governance activities with Human-in-the-Loop (HITL) intervention, e.g., a human verifying accuracy of AI selected governance decisions or actions

<u>Support Augmentation</u>: Humans using AI to assist management with governance activities, e.g., identifying key information needs and business objectives, research, conducting trend analysis, monitor compliance with organizational directives





CMMI AI Content – Key Strategic Themes - 2

 Of particular importance, senior management should emphasize and prioritize organizational efforts and resources to address data debt, process debt, and technical debt holistically and together, otherwise, AI becomes just another failed promise and strategic initiative.

• As with any strategic implementation: Senior management must also foster a data-driven culture to address critical AI-related challenges such as privacy, silos, misuse, bias, data quality, and related regulatory requirements. This includes reinforcing responsible data best practices, identifying and mitigating data-related risks, and communicating the importance of proper data governance in support of AI adoption.



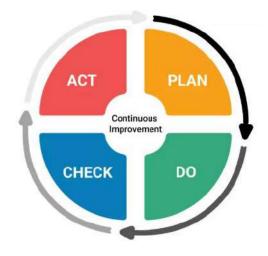


Next step: Appraise and close the gap

- At this point strategic plan is completed and CMMI capabilities have been identified.
- Finalize scoping, planning and conduct the appraisal.
 - Finalize scoping and planning.
 - Conduct the appraisal to identify strengths and improvement opportunities.
- Next is the process for developing, deploying and improving process.
 - Prioritize the improvement opportunities.
 - Process definition to close the gaps.
 - Deploy the process: Training, measures and process quality assurance (PQA).
 - Feedback and continually improve the process.
- Who owns the process?
 - EPG, PMO, Quality Director, CSO

Tools that can help are
Six Sigma's DMAIC
SEI's IDEAL
Demings PDCA

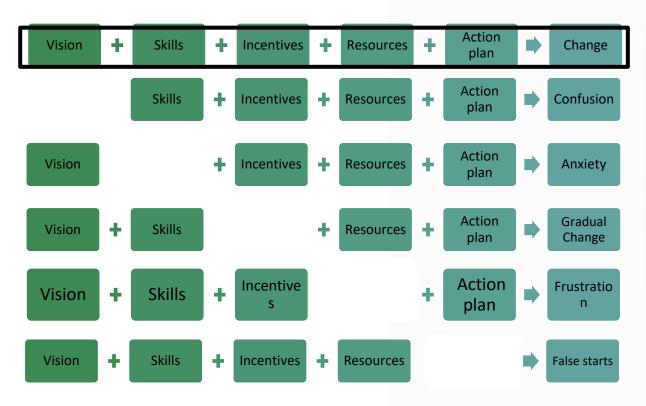
Many examples of how to do this process for process







Organizational Change Management





Executive coaches can help leadership with change management





Summary

- Strategic planning can be done with very well-known models.
 - Strategic Planning practices are good, but executing the plan failures are high.
- CMMI is a comprehensive model that is proven to enhance organizational capabilities.
 - CMMI aligns well with the outcomes of widely used strategic planning tools, such as SWOT, Balanced Scorecard (BSC), Business Model Canvas (BMC), and Porter's Value Chain.
 - CMMI addresses many of the capability gaps that lead to strategy-execution failures.
- Plan, scope, and appraise the identified organizational processes (which deliver capabilities) to uncover strengths and opportunities for improvement.
- Follow a "process for process" approach to develop and deploy repeatable practices that build strategic capabilities and help close the strategy-execution gap.
- Learn from your process practices and continuously strengthen your processes and strategic capabilities.
- A key leadership responsibility is organizational change management.





What's next

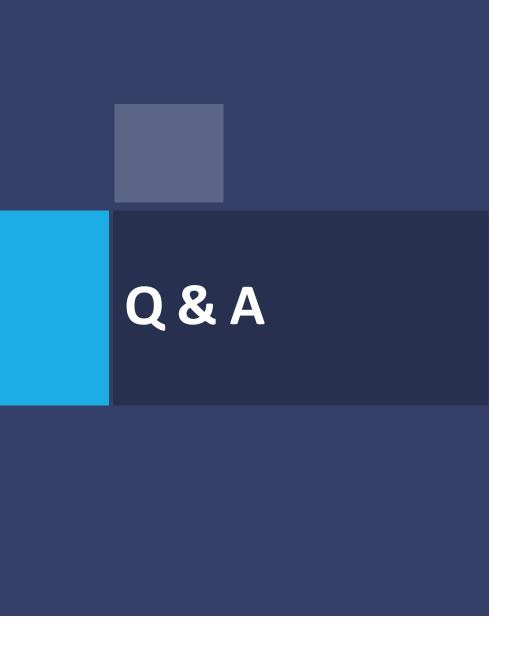
- Contact any CMMI partner at https://cmmiinstitute.com/partners/directory
- Contact the Demix team today for

Free consultation + Free CMMI model quick reference guide

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- Visit the Demix website <u>www.demix.org</u>















Supplementary material

A Manager's Guide to Successful Strategy Implementation

15 Jan 2024 by Kate Gibson

https://online.hbs.edu/blog/post/strategy-implementation

- 1. Handle Tension
 - Making tough choices isn't easy, and you need to manage any tension that arises with change.
 - CMMI Supporting Implementation (SI)
 - DAR
 - CMMI Sustaining Habit and Persistence (SI)
 - GOV, II
- 2. Align Job Design to Strategy
 - CMMI Managing the Workforce (MWF)

- 3. Inspire Employee Buy-In
 - CMMI Sustaining Habit and Persistence (SI)
 - GOV, II
- 4. Manage Risk
 - CMMI Managing Business Resilience (MBR)





Strategy Implementation Process: Why 70% of Strategic Initiatives Fail (And How to Be in the 30% That Succeed)

21 May 2025 by Lisa Carlin

https://theturbochargers.com/strategy-implementation-process-why-70-of-strategic-initiatives-fail-and-how-to-be-in-the-30-that-succeed/

- Organizations frequently lack structured processes for translating strategy into action.
- And stakeholder resistance emerges when execution begins and staff push back on the change.
- The Three-Dimensional Implementation Process You're Not Using
 - 1 Strategic Clarity Dimension
 - Sustaining Habit and Persistence (SHP)
 - GOV and II
 - Improving Performance (IMP)
 - MPM, PAD, PCM
 - 2. Engagement Dimension
 - Sustaining Habit and Persistence (SHP)
 - GOV and II
 - 3. Execution Structure Dimension
 - Planning and Managing Work (PMW)





5 Reasons strategy execution fails

21 December 2023 by Kate Gibson

https://online.hbs.edu/blog/post/why-do-strategic-plans-fail

- 1. Ineffective Resource Allocation
 - CMMI Planning and Managing Work
 - CMMI Managing the work force
- 2. Ineffective Risk Management
 - CMMI Managing Business Resilience
- 3. Vague Strategic Goals
 - CMMI Sustaining Habit and Persistence

- 4. Lack of Organizational Support
 - CMMI Sustaining Habit and Persistence
- 5. Imbalance of Innovation and Control
 - CMMI Planning and Managing Work
 - CMMI Ensuring Quality





Why Strategy Fails: When Strategy Stays On The Slide

14 April 2025 by Tefi Alonso

https://www.cascade.app/blog/why-strategy-fails

- Strategies fail because organizations lack the right systems and, crucially, the Csuite commitment required to manage strategy as a living, operational process, not just a document.
 - CMMI Sustaining Habit and Persistence
 - GOV and II
 - CMMI Plan & Managing Work (PMW)
 - EST, PLAN, MC
 - CMMI Improving Performance (IMP)
 - MPM, PAD, PCM

- 1. Visibility
- CMMI Sustaining Habit and Persistence
 - GOV and II
- 2. Lack of insight: Strategy deserves its system
 - CMMI Improving Performance
 - MPM, PAD, PCM
- 3. Alignment Chasm Fragmented Action Disconnected From Intent
 - CMMI Planning and Managing Work
 - EST, PLAN, MC





Why Strategy Fails: When Strategy Stays On The Slide

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https://www.cascade.app/blog/why-strategy-fails

- 4. The need for a shared, living process
 - CMMI Sustaining Habit and Persistence
 - GOV and II
 - CMMI Improving Performance
 - MPM, PAD, PCM
 - CMMI with the applicable selected domains
- 5. Question for leaders: Does your process foster true alignment?
 - CMMI Sustaining Habit and Persistence
 - GOV and II

- 6. The Focus Deficit Drowning In Complexity With Static Plans
 - CMMI Supporting Implementation (SI)
 - CAR, CM, DAR
- 7. Two-thirds of strategic projects miss their deadlines.
 - Planning & Managing Work (PMW)
 - EST, PLAN, MC





Gartner Summit 2024 Highlights: Building Effective AI Strategies

27 March 2024 https://www.castordoc.com/blog/gartner-summit-2024-highlights

- "Organizations with advanced D&A maturity enjoy a 30% higher financial performance than their peers." – Gartner
 - CMMI Data
 - Managing Data = Data Management, Data Quality
- A Successful Data Leadership: 3%
 Strategy, 97% Execution
 - CMMI Supporting Implementing
 - DAR, CM, CAR

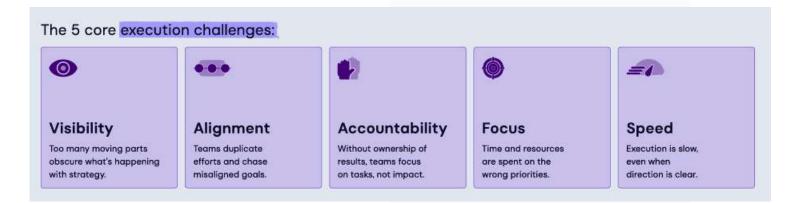




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- Visibility
 - CMMI Sustaining Habit and Persistence
- Alignment
 - CMMI Managing the Workforce

- Accountability
 - CMMI Managing the Workforce
 - CMMI planning and managing work
- Focus
 - CMMI planning and managing work
 - CMMI planning and managing work

- Speed
 - CMMI is about process capability.
 Process determines speed.





The focus

Benchmark (maturity levels) **CMMI** Dev focus USD Department of (add definition) Defence, India, China Evaluation – **Improvement** focus (add **Strategy Execution Gap,** Full CMMI Model definition). MDDAP (Medical Device **Focus** Covering the Discovery Appraisal) strategic cap focus.



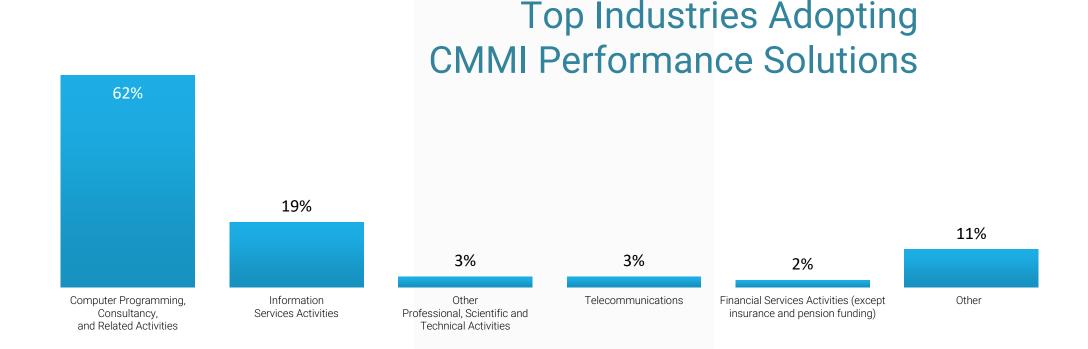
Focus is evaluation appraisals using parts of the full model and all its domains





Which Industries Use CMMI?

A broad and diverse set of industries use CMMI and CMMI adoption continues to expand across industries







CMMI Artificial Intelligence (AI): Numbers to Date

- 25+ Members of the Al Working Group
- 5 Packages for Community Review
- 80 Community Reviewers
- 7 Internal CMMI Content Reviewers
- ~100 different companies involved in the development or review of AI material
- 130 punchlist items, in addition to Al content
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CMMI AI Content Community Review Highlights

881 Total Comments from Community Review

81% of Comments Accepted (96% of these were focused on content additions, primarily adding examples, clarifying content, or adding additional context)

All content has been through an Al and plagiarism checker

Themes when comments were not accepted:

- Request to add information but the location was not appropriate:
 - o Already covered in other areas of the model, e.g., policy, risk
 - Information is already incorporated within the Practice Area or practice
 - Information was too narrowly focused and not broadly applicable
- No change clearly identified, e.g., comment of no change.
- Misunderstanding of CMMI architecture or scope of release, e.g., change to practice statements
- Terminology inconsistencies, e.g., request to add terms not used in the model

