

India as a Strategic Capability Hub for the German Mittelstand

Designing, governing and scaling Global Capability Centers as durable extensions of the enterprise

October 2026



Table of Content

● Foreword	03
● Reimagining Global Capability Centers (GCCs) for the German Mittelstand: India as a Strategic Value Hub	05
● Executive perspective	05
● The strategic imperative: Why GCCs matter for Mittelstand growth	05
● Decoding the Mittelstand	07
● India's value proposition — beyond labor arbitrage	08
● GCCs in action: How micro, small and midsize centers deliver value	12
● GCC models suited for the Mittelstand	16
● Regulatory and policy landscape: What Mittelstand leaders need to know	23
● A phased roadmap for establishing a future-ready GCC in India	27
● Key takeaways and strategic recommendations	28
● Authors ISG & IGCC	33

Foreword

For the owner of a Mittelstand company, building a team in another country is a deeply considered decision. It means sharing knowledge accumulated over decades, entrusting colleagues with important responsibilities, and bringing them into a business whose name often carries a family's legacy. Any discussion about Global Capability Centers should therefore begin with respect for that responsibility.

This paper examines what such a step could mean for German companies considering India. Germany and India have much to offer each other. German businesses bring deep industrial knowledge and an enduring commitment to quality. India offers engineering and digital expertise, together with considerable experience in working with global enterprises. Bringing these strengths together requires patience and a willingness to understand how colleagues in another part of the world think and work.

For the Mittelstand, this opportunity deserves careful attention. As software becomes increasingly integral to industrial products and businesses explore new applications for artificial intelligence, access to the right skills can increasingly shape what a company can achieve. A well-integrated team in India can strengthen engineering capacity, support development projects and help companies respond more quickly to customers. Yet business leaders are right to have questions: Can we attract the people we need? How do we protect our know-how? Who will lead the team locally? And how do we ensure that colleagues in Germany and India feel part of the same company?

These questions deserve honest and practical answers. A model that works for a large multinational may need to be adapted for a family-owned engineering business. A focused mandate, careful leadership and strong relationships can provide a sound basis for growth. The commitment of headquarters matters just as much as the capability of the team in India.

At the Indo-German Chamber of Commerce, helping companies understand each other and build lasting business relationships is central to our work. I hope this publication provides a useful starting point for companies considering whether an India-based team could make a meaningful contribution to their future.

My thanks to everyone who has contributed their knowledge and perspective to this paper. I encourage readers to approach it with curiosity, ask difficult questions and learn from businesses that have already made this journey. That is often where the most useful understanding begins.

Best wishes

A portrait of Jan Noether, a middle-aged man with short grey hair, wearing a dark suit, white shirt, and blue tie. He is standing with his arms crossed and a slight smile.

Jan Noether

Director General,
Indo-German Chamber of Commerce

Foreword

The German Mittelstand has built its global success on engineering excellence, product quality, customer intimacy and long-term value creation. Today, these strengths must be sustained in an environment shaped by AI, software-defined products, demographic change and an increasingly constrained talent market.

This is enhancing the role of Global Capability Centers (GCCs)

A GCC is no longer simply a vehicle for labour arbitrage or cost reduction. When it is designed carefully, it can become a strategic extension of the enterprise, strengthening engineering capacity, accelerating digital transformation and providing access to critical capabilities like AI etc while preserving control over intellectual property, product ownership and CORE know-how.

For Mittelstand, however, there is no standard blueprint. Success requires a clear mandate,

the right operating model, strong governance and a phased approach aligned with business value and organizational readiness.

Amongst other regions, India does stand out and being particularly relevant in this context due to a combination of engineering depth, digital talent, mature ecosystem and innovation capabilities.

This joint **ISG-IGCC playbook** is designed to help Mittelstand leaders translate this into action. It provides a practical perspective on the choices ahead, from defining the operating model to location, governance, talent and a phased approach to establishing and scaling capabilities in India.

This playbook goes beyond just building an offshore center to creating a "durable" extension of the enterprise, combining the engineering heritage and entrepreneurial strengths of the German Mittelstand with India's talent, scale and innovation ecosystem.



Andreas Fahr

Managing Director, ISG DACH

Reimagining Global Capability Centers (GCCs) for the German Mittelstand: India as a Strategic Value Hub

Executive perspective

Key Thesis: GCCs serve as strategic growth engines, rather than a pure labor arbitrage strategy

Why Now for the Mittelstand: Industry 4.0, AI, talent scarcity, supply chain shifts, digital business models and demographical change – future workforce

India's evolving role in global enterprise transformation

Who should read it – Owners, CEOs, CTOs, CDOs and CHROs of Mittelstand organizations and DACH based organizations

The strategic imperative: Why GCCs matter for Mittelstand growth

Shift from export-led to capability-led globalization

For decades, the German Mittelstand's (midsize segment) internationalization strategy was primarily driven by exports and proximity to customers. Manufacturing excellence remained concentrated in Germany, while international subsidiaries focused largely on sales, distribution and after-sales services. This model supported Germany's position as one of the world's leading exporters.

Today, however, structural shifts are reshaping the competitive landscape.

Digital technologies, AI, geopolitical uncertainty, supply chain disruptions, demographic change and an increasingly scarce skilled workforce require companies to globalize both their markets and capabilities.

Rather than focusing on where products should be sold, companies increasingly need to determine where innovation, software engineering, analytics, product development and digital operations can be performed most effectively. This shift marks the transition from export-led globalization toward capability-led

globalization, a model in which globally distributed expertise becomes a strategic competitive asset while intellectual property, governance and core decision-making remain firmly under the company's control.

For many Mittelstand companies, GCCs provide the organizational model that enables this transformation. Rather than outsourcing isolated services, GCCs establish integrated teams that become an extension of the enterprise's own innovation and operating model

How GCCs support Mittelstand

Unlike traditional offshore delivery models focused primarily on cost reduction, modern GCCs are designed to strengthen long-term strategic capabilities.

Scaling innovation and expediting product iteration

Many industrial companies are increasingly integrating software, digital services and data-driven business models into their products. Distributed engineering and development teams enable innovation activities to continue across locations,

accelerating development cycles and fostering closer collaboration among hardware, software and digital specialists.

Accelerating digital transformation

Germany's industrial sector is investing heavily in cloud technologies, industrial data platforms, AI and Industry 4.0. Yet many SMEs face significant shortages of digital specialists. GCCs enable companies to establish dedicated competence centers for software engineering, cybersecurity, AI development, cloud operations and data analytics, accelerating digital transformation without overburdening domestic organizations.

Accessing global talent

Germany's demographic outlook presents one of the most significant long-term challenges for industrial competitiveness. According to Eurostat and the European Commission, aging populations and declining labor force growth are expected to intensify shortages of highly qualified professionals across engineering and digital disciplines.

GCCs allow companies to complement, not replace, their domestic workforce by accessing highly qualified talent in established innovation ecosystems such as India, broadening access to critical capabilities while preserving engineering leadership within Germany.

GCCs vs. traditional outsourcing: Control where it matters, IP ownership, agility and ability to scale via strategic partnerships

Although GCCs and outsourcing both leverage global talent, they represent fundamentally different operating models.

Traditional outsourcing transfers clearly defined activities to an external service provider. While this approach can generate

efficiency gains for standardized processes, strategic capabilities often remain constrained by contractual boundaries, provider priorities and limited organizational integration.

GCCs follow a different philosophy. They are owned or strategically governed by the enterprise itself and operate as integrated parts of the organization, enabling companies to retain control over intellectual property, technology roadmaps, product knowledge and critical engineering capabilities.

For Mittelstand companies whose competitive advantage is built upon proprietary technologies, specialized know-how and long-term customer relationships, maintaining governance over core capabilities is often more important than achieving the lowest possible operating costs.

Consequently, many organizations combine both approaches: outsourcing standardized services where external scale creates value, while developing strategically relevant capabilities within GCCs.

Relevance for family-owned, niche leaders and hidden champions

Germany's Mittelstand includes thousands of family-owned companies that are global market leaders within highly specialized industrial niches. Often described as Hidden Champions, these firms compete through engineering excellence, product quality and deep customer expertise rather than sheer scale.

Their success increasingly depends on capabilities that extend beyond traditional manufacturing: software engineering, AI, data science, digital customer solutions and advanced analytics.

However, these companies frequently operate with lean organizational structures and face growing challenges

in recruiting sufficient digital talent domestically. Establishing large technology organizations in Germany alone is becoming increasingly difficult.

For Hidden Champions, GCCs are therefore less of a cost optimization instrument than

a strategic capability platform. They enable companies to expand innovation capacity, build digital expertise, support global operations and strengthen resilience while maintaining the entrepreneurial culture, governance principles and long-term orientation that define the Mittelstand.

Decoding the Mittelstand

Structural characteristics

The German Mittelstand represents far more than a company size classification. It reflects a distinctive business philosophy characterized by long-term ownership, technological excellence and sustainable value creation.

Several characteristics distinguish these companies:

- Predominantly family-owned or entrepreneur-led businesses with multi-generational investment horizons
- Strong specialization in global niche markets, often holding leading international market positions
- Exceptional engineering expertise and continuous investment in product quality and innovation
- Lean organizational structures, prudent capital allocation and long-term financial discipline
- Close relationships with customers, employees and regional ecosystems

The combination of these characteristics has made the Mittelstand one of Germany's most important economic strengths and a key contributor to industrial competitiveness.

Operating constraints

Despite their strengths, many Mittelstand companies are approaching structural limits that increasingly constrain future growth.

Germany faces persistent shortages of skilled professionals, particularly in engineering, software development and IT. Demographic change is expected to further reduce the available workforce over the coming decades.

At the same time, many companies continue to modernize fragmented digital landscapes and expand capabilities in cloud computing, AI and industrial data management. Building these capabilities internally is often difficult due to limited resources and intense competition for talent.

Many firms are also first-generation adopters of global delivery models. Unlike multinational corporations, they frequently have limited experience in managing distributed teams, international governance structures or cross-border capability networks.

Combined with traditionally cautious investment approaches and strong governance structures, these factors can slow down organizational transformation despite clear strategic necessity.

Strategic inflection point

Several structural trends are converging to create a decisive moment for the German Mittelstand.

Industrial competitiveness increasingly depends on digital capabilities, including AI, automation, connected products and data-driven services. Manufacturers are evolving from product suppliers to providers of integrated solutions and recurring digital services.

At the same time, geopolitical developments have accelerated supply chain diversification. Companies increasingly balance regional resilience with global capability networks,

combining nearshoring, friend-shoring and offshore delivery to meet business requirements.

Against this backdrop, GCCs offer a strategic option for Mittelstand companies to diversify critical capabilities internationally while maintaining ownership, governance and technological leadership. Rather than relocating core competencies, GCCs enable companies to extend them globally, creating resilience without compromising the values that have defined the Mittelstand's success.

India's value proposition — beyond labor arbitrage

Why India and how it compares: A strategic lens for German enterprises

For German enterprises evaluating GCC strategies, the question of Why India is increasingly tied to a broader consideration of how India fits within a distributed global capability architecture alongside nearshore Europe.

The decision is no longer binary. It is not about choosing between India and locations such as Poland, Romania or Portugal. It is about understanding what each geography is structurally designed to deliver, and how these capabilities can be orchestrated to support evolving enterprise priorities.

India's role: A capability multiplier, not a cost lever

India's strategic relevance lies in its ability to serve as a capability multiplier across engineering and digital domains.

For German enterprises, particularly those rooted in automotive, industrial engineering and manufacturing, the shift toward software-defined products and intelligent operations is creating structural capability gaps. India addresses these

challenges not solely through scale, but through a combination of engineering depth and digital fluency. This strategy enables enterprises to accelerate the development of software, data and platform capabilities that are now central to maintaining competitiveness.

The country has become a major hub for AI, data engineering and cloud native development, with 2.3 to 2.5 million science, technology, engineering and mathematics (STEM) students graduating every year, which is 25 times higher than some of the nearshore European centers. More importantly, India-based GCCs are increasingly shaping the deployment of these technologies at scale. They are contributing to data architecture, building intelligent systems and supporting enterprise-wide digital transformation agendas. These developments reflect the broader evolution of GCCs into innovation-led, multi-disciplinary centers that contribute directly to enterprise value creation.

This capability advantage is further reinforced by the maturity and scale of India's engineering talent ecosystem. At present, India remains one of the largest

producers of engineering talent globally, with annual intake and graduation volumes running into the millions across disciplines such as computer science, electronics, mechanical engineering and emerging digital fields. Recent data from the All India Council for Technical Education indicates that over 1.5 million engineering seats are approved annually, with sustained high enrollments and increasing specialization in areas such as AI, data science, cybersecurity and robotics.

This scale is not abstract. It is geographically concentrated across well-established engineering clusters such as Bengaluru, Hyderabad, Pune, Chennai and the National Capital Region, each of which has evolved into a domain-specific talent hub spanning product engineering, embedded systems, digital platforms and enterprise technology. These cities offer access to talent and depth across experience bands, enabling enterprises to build both specialist-led teams and scalable engineering organizations.

The maturity of this ecosystem is further evidenced by the long-standing presence of German enterprises that have built and scaled

engineering and R&D centers in India over decades. Organizations such as Bosch, Siemens, Volkswagen Group and Daimler Truck have established deep engineering footprints in India, spanning automotive software, industrial automation, digital engineering and product development. The continued expansion of their footprint/these companies reflects cost advantage and sustained confidence in India’s ability to deliver complex engineering and innovation outcomes.

Taken together, talent scale, geographic clustering and proven enterprise adoption create a reinforcing effect. Enterprises entering India are not building in isolation; they are embedding into a well-developed engineering ecosystem that has already demonstrated its ability to support global R&D and innovation mandates.

A comparative view: India and nearshore Europe

A clearer understanding emerges when India is viewed alongside nearshore options available to German enterprises.

Capability dimension	India	Poland	Romania	Portugal	Emerging nearshore (Balkans)
Talent Scale	Very High	High	Medium	Low to Medium	Low
Digital and AI Depth	Very High	High	Medium	Medium	Low to Medium
Engineering Capability	Very High	High	Medium	Medium	Low
Time Zone Alignment	Medium	Very High	Very High	Very High	Very High

Capability dimension	India	Poland	Romania	Portugal	Emerging nearshore (Balkans)
Cultural Proximity	Medium	High	Medium to High	Very High	High
Cost Efficiency	High	Medium	Medium to High	Medium	High
Ecosystem Maturity	Very High	High	Medium	Medium	Low
Startup and Innovation Access	Very High	Medium	Medium	High	Low
Scalability	Very High	Medium	Medium	Low	Low
Regulatory Alignment	Medium	Very High	Very High	Very High	Medium

Interpreting the landscape: depth and proximity

The comparison highlights a structural distinction between India and nearshore Europe (Central and Eastern Europe).

Nearshore locations are designed for proximity. Their advantages lie in real-time collaboration, cultural alignment and regulatory compatibility. These characteristics make them effective for collaboration-intensive work, customer-facing roles and functions that require close interaction with headquarters.

India operates on a different axis. It is designed for depth and scalability. Its ability to combine large talent pools with deep specialization, particularly in digital engineering and emerging technologies, makes it well-suited for building and scaling complex capabilities.

This is not a matter of one being superior to the other. It pertains to a distinction in how value is created. Nearshore locations enable alignment and immediacy. India enables capability expansion and innovation throughput.

Time zone differences illustrate this distinction further. While nearshore locations support synchronous collaboration, India enables extended execution cycles and continuous delivery models. When managed effectively, this can accelerate development timelines rather than constrain them.

Designing the right approach: From location choice to capability architecture

For German enterprises, the implication is clear. The decision is not about selecting the best location but about

designing a complementary capability architecture.

India is most effective when positioned as the capability core. It anchors engineering scale, digital and data capabilities, and product innovation. Nearshore locations serve as the proximity layer, supporting collaboration-intensive work and regulatory alignment.

However, implementing this model requires a deliberate approach.

Successful GCCs in India begin with clarity of intent. They are designed with a defined role, such as serving as an engineering hub, a digital innovation center or a domain-focused capability unit. This clarity ensures coherence and prevents fragmentation.

Integration into global operations is equally important. High-performing GCCs function as extensions of global teams, sharing accountability for outcomes. Achieving this level of integration requires alignment on governance, metrics and decision-making from the outset.

Talent strategy must focus on capability density rather than scale, especially in areas such as AI, data platforms and digital engineering, where value is driven by expertise and problem-solving ability.

A phased approach to scaling further improves outcomes. Starting with focused mandates, demonstrating value and expanding in alignment with enterprise priorities allows organizations to build sustainably while managing risk.

Anticipating challenges in the Indian context

The challenges associated with India-based GCCs are largely related to execution rather than environment.

Misalignment between headquarters and GCCs is one of the most common issues,

particularly in how value is defined and measured. When expectations are not aligned, outcomes fall short. Addressing this requires shared definitions of value and outcome-driven performance frameworks. Gaps in governance and metrics are known to limit value realization if not addressed.

Talent continuity requires attention due to the dynamic nature of the market. Organizations that invest in meaningful work, leadership engagement and career progression are better positioned to retain and develop talent.

Operational diffusion can occur if GCCs expand without a clear mandate. Maintaining discipline in scope and ensuring alignment with strategic priorities help avoid fragmentation.

Finally, enterprises that do not engage with India's broader ecosystem risk limiting their innovation potential. Active collaboration with startups, academic institutions and industry networks enables GCCs to access new ideas and accelerate experimentation.

India's role in GCC strategies is best understood in relation to nearshore Europe. It complements rather than replaces proximity-driven locations.

Nearshore hubs offer alignment, immediacy and regulatory ease. India offers depth, scalability and innovation capacity. The strategic advantage lies in combining these strengths into a cohesive model.

For German enterprises, the question is no longer whether to choose India but how to design an India-led capability core within a distributed global framework.

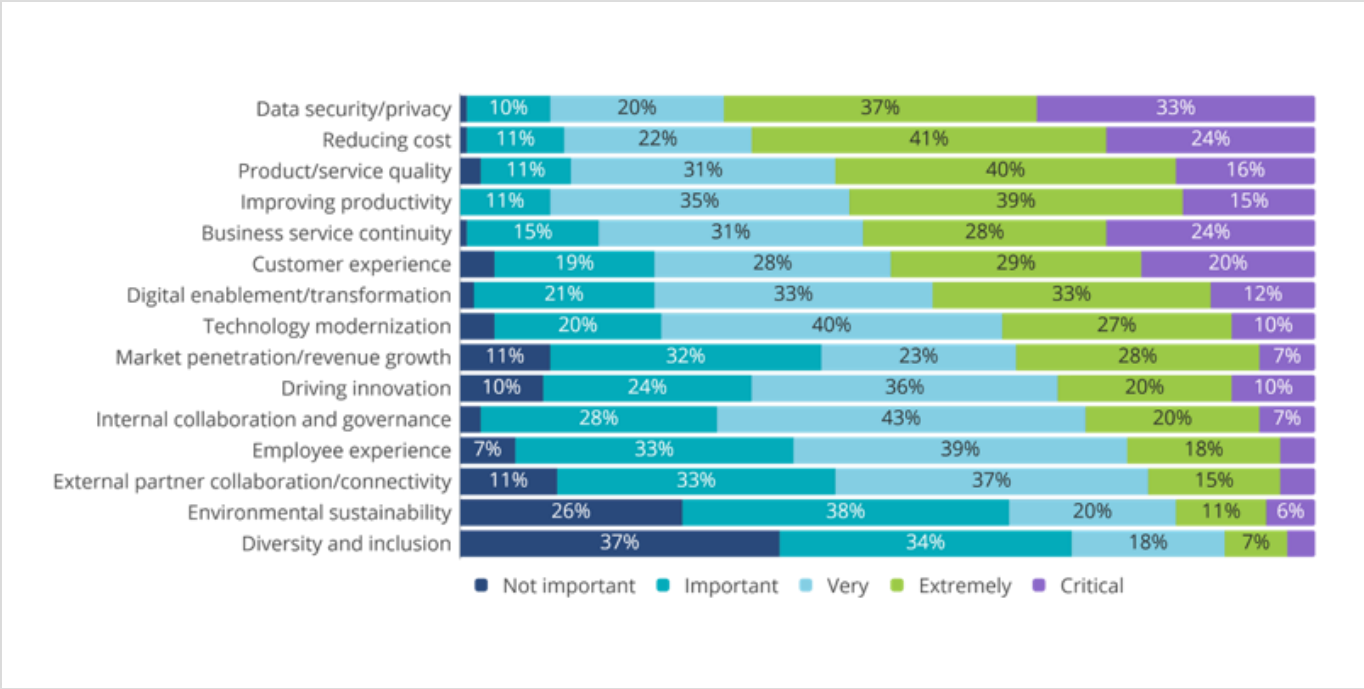
Those that approach India as a source of incremental efficiency will see limited impact. Those that position it as a capability multiplier embedded within their engineering and digital core will unlock sustained and meaningful value.

GCCs in action: How micro, small and midsize centers deliver value

As enterprises move beyond viewing India as a source of labor arbitrage, the focus shifts decisively to how GCCs are designed to convert talent advantage into measurable business impact. Today, the effectiveness of a GCC is less about absolute scale and more about mandate clarity, operating design and alignment with enterprise priorities.

ISG Market Lens analysis of GCCs highlights a clear shift in enterprise expectations, prioritizing speed to value, quality of outcomes, access to specialized skills and contribution to business performance over pure cost efficiency. This shift explains the growing relevance of micro, small and midsize GCCs as distinct, purpose-built constructs, rather than as points on a linear maturity curve.

GCC Priorities – ISG Market Lens 2025



Mandate evolution: support → core → innovation partner

Across successful GCCs, mandate evolution follows a recognizable, though not inevitable, trajectory. What differentiates high performing centers is not the speed of expansion but the intentional progression of ownership.

- **Support-oriented mandates** focus on stability, responsiveness and efficiency, often centered on application support, engineering assistance or reporting.
- **Core capability mandates** expand ownership to defined product modules, platforms or lifecycle stages, with accountability for quality, throughput and outcomes.
- **Innovation partner mandates** position the GCC as a co-creator, contributing to roadmap definition, platform development and IP creation.

Crucially, this evolution is enabled by locations that can support extensive context, domain knowledge and leadership continuity. India's GCC ecosystem has matured to support this progression even in sub 500 FTE environments, allowing enterprises to move mandates upstream without waiting to scale.

The result is a shift from execution dependency to capability ownership, with governance and performance metrics evolving accordingly.

Case patterns observed in small and midsize GCCs

While mandates vary by industry, several repeatable operating patterns have emerged across high performing micro, small and midsize GCCs.

Engineering design Hubs (Mechanical, embedded, software)

These GCCs take ownership of discrete yet critical elements of product engineering:

- Mechanical and systems design
- Embedded software and firmware
- Software layers that support hardware-led products

Their effectiveness stems from specialization over scale. Concentrated expertise, stable product alignment, and tight integration with global engineering teams enable faster iterations and higher design quality, often with direct implications for product differentiation.

Digital CoEs (Cloud, data and AI platforms)

Small and midsize GCCs increasingly anchor enterprise digital foundations:

- Cloud platform engineering and operations
- Data platforms and analytics engineering
- AI/ML model development and deployment pipelines

These centers perform best when designed as product-oriented platforms rather than as horizontal IT functions. India's depth across cloud, data and AI skills allows enterprises to build CoEs that are both technically credible and scalable, even without a large headcount.

Analytics led decision support and operational excellence

Another common pattern is the emergence of analytics hubs focused on:

- Forecasting and planning
- Predictive maintenance and quality analytics
- Cost, productivity and performance optimization

Value here is tightly coupled with business impact, improved decision-making, reduced variability and enhanced operational control. Small and midsize GCCs benefit from proximity to business stakeholders and faster feedback loops, enabling analytics models to evolve rapidly from insight to action.

CX engineering (IoT and digital twins)

Some of the most advanced midsize GCCs operate at the intersection of:

- Connected products and IoT platforms
- Digital twins for assets and operations
- Experience layers built on physical products

These mandates require the convergence of engineering, digital and domain expertise, an area where India's ecosystem advantage is particularly pronounced. GCCs in this category increasingly contribute to new revenue models and service innovation, extending beyond mere operational efficiency.

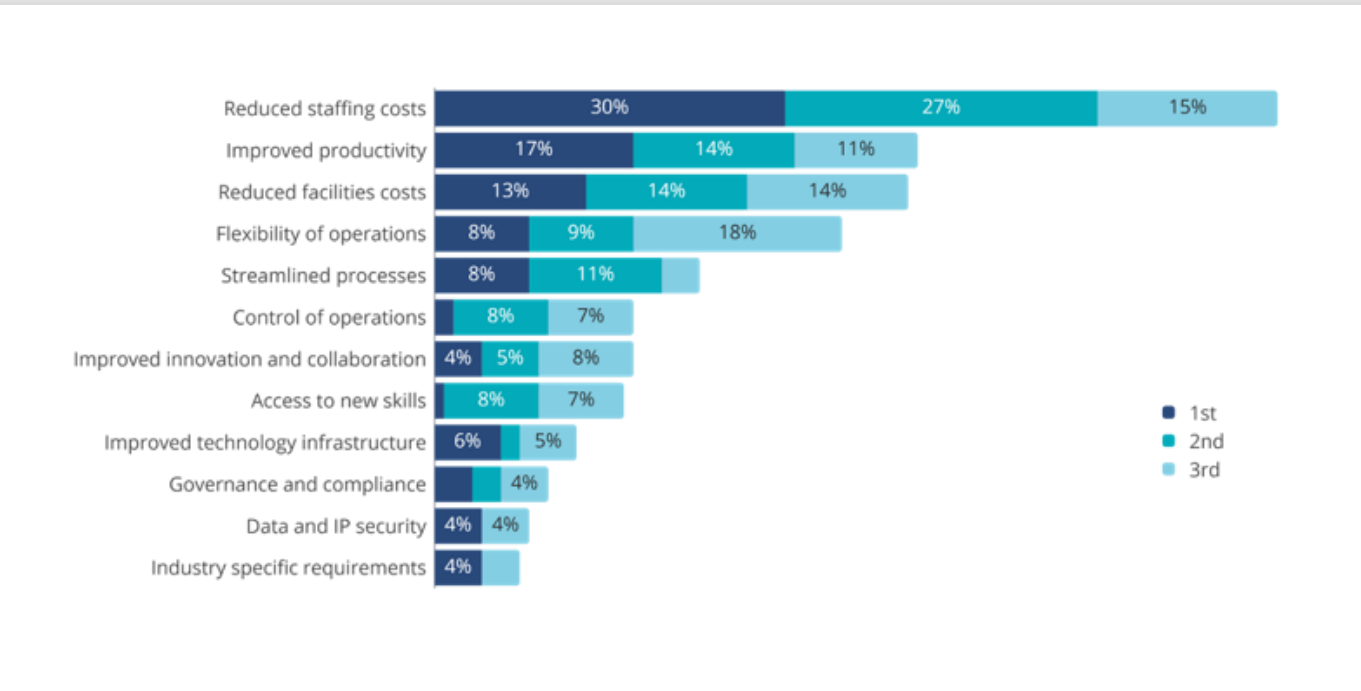
Measurable value delivered by small and midsize GCCs

One defining characteristic of successful GCCs in this segment is the clarity and credibility of value measurement. ISG performance benchmarking highlights several areas where midsize GCCs consistently deliver strong outcomes.

- **Time-to-market:** Rapid development and release cycles through parallel execution and tight integration with global teams
- **Quality and defect reduction:** Improved design validation, test automation and engineering rigor, leading to fewer downstream issues
- **Cost-to-value ratio:** Increased productivity per FTE driven by specialization and reduced vendor dependency, rather than headline cost savings alone
- **Innovation and IP creation:** Increased contribution to patents, reusable platforms and enterprise-wide assets

These metrics resonate strongly with enterprises seeking sustainable competitive advantage rather than short-term efficiency gains.

GCC Objectives by Size – ISG Market Lens



Lessons from successful midsize GCCs (≤500 FTE)

Analysis of consistently high performing midsize GCCs reveals a set of common design and execution principles:

- **Start narrow, then expand with intent:** Successful centers begin with clearly defined mandates and deepen ownership before broadening scope.
- **Leadership density matters more than headcount:** Strong GCC leadership with product, engineering and business credibility is a decisive success factor.
- **Embed the GCC into global value streams:** High performing GCCs

operate as integrated nodes within global teams, with shared KPIs and accountability.

- **Design governance early:** Clear decision rights, architectural ownership and performance metrics prevent friction as mandates evolve.
- **Treat the GCC as a strategic asset:** Enterprises that view midsize GCCs as long term capability engines, rather than variable cost units, extract disproportionately higher value.

While micro, small and midsize GCCs can exist in many locations, their ability to deliver sustained, multi dimensional value is not location agnostic.

GCC models suited for the Mittelstand

Selecting the right GCC model: From structure to strategic fit

There is no universally superior GCC model. The appropriate operating model depends on a company's strategic objectives, governance maturity, investment capacity and long-term capability ambitions. For German Mittelstand companies in particular, the decision extends beyond legal ownership or delivery location. It requires balancing entrepreneurial control with access to global talent, innovation ecosystems and operational scalability.

Traditionally, companies viewed the decision primarily as a choice between building an internal captive organization or outsourcing selected activities. Today, this distinction has become increasingly blurred. Modern GCCs are best viewed as part of a broader global capability ecosystem, combining internal teams with carefully selected strategic partners to create additional value. The emphasis has, therefore, shifted from ownership alone to the effective orchestration of capabilities across organizational boundaries.

Rather than *asking Which is the best GCC model*, Mittelstand companies should ask the following three strategic questions:

- Who should own the capability (operating model)?
- How should the capability be established (establishment model)?
- How should capabilities be distributed across locations (delivery footprint)?

These three dimensions are independent. For example, a company may operate a wholly owned captive GCC, establish it through a Build-Operate-Transfer (BOT) arrangement and subsequently expand into a multi-city Hub-and-Spoke network. Understanding these dimensions separately enables more informed strategic decision-making and avoids treating GCC models as mutually exclusive alternatives.

Captive (in-house) GCC

A captive GCC represents the highest degree of organizational ownership and strategic control. The GCC is established as a legal entity fully owned by the parent company and operates as an integral part of the enterprise rather than as an external service provider. This model is particularly suited to organizations that consider globally distributed capabilities to be a long-term strategic asset rather than a sourcing alternative.

For many German Mittelstand companies, the primary motivation for establishing a captive GCC is not cost reduction, but the ability to develop and retain critical capabilities within the company's own governance framework. Functions such as software engineering, product development, industrial digitalization, data analytics or cybersecurity increasingly represent core elements of competitive differentiation. Where intellectual property, proprietary engineering expertise or customer-specific knowledge constitute strategic assets, maintaining direct organizational control can become a decisive factor.

A captive model also enables companies to shape organizational culture, leadership principles and capability development according to their own standards. Employees become part of the enterprise, facilitating closer collaboration with headquarters, stronger knowledge transfer and greater alignment with long-term business objectives. This is particularly relevant for family-owned businesses whose competitive advantage is built on accumulated know-how, stable customer relationships and a long-term investment horizon.

However, establishing and operating a captive GCC requires a significant organizational commitment. Companies assume full responsibility for legal entity establishment, regulatory compliance, talent acquisition, employer branding, operational governance and local leadership. Building these capabilities can require considerable management attention, particularly for organizations with limited international experience or without an existing presence in the target country.

Consequently, the captive model is generally most appropriate for Mittelstand companies that view global capability development as a permanent strategic investment, possess sufficient organizational maturity to manage international operations and seek maximum control over business-critical capabilities and intellectual property.

Hybrid GCC: Combining strategic control with ecosystem capabilities

A hybrid GCC combines the strategic advantages of an in-house GCC with the flexibility and specialized expertise of selected external partners. Rather than viewing internal and external delivery models as mutually exclusive, the hybrid

approach integrates both into a coordinated operating model, enabling companies to retain ownership of business-critical capabilities while leveraging external resources where they provide additional value.

For many German Mittelstand companies, this model offers a pragmatic path toward international capability development. Unlike large multinational enterprises, Mittelstand organizations often operate with lean management structures and limited international support functions. Building every capability internally from the outset can, therefore, require considerable investment in recruitment, local leadership, operational governance and administrative infrastructure. A hybrid model allows companies to establish their own organizational presence while selectively relying on trusted partners for activities such as recruitment, facility management, specialized technical expertise or temporary capacity expansion.

A hybrid GCC should not be interpreted as a transitional outsourcing arrangement; it reflects the growing reality that modern enterprises increasingly operate within interconnected capability ecosystems. As technologies rapidly evolve and demand for specialized digital skills continues to increase, organizations benefit from combining stable internal teams with external expertise that can be scaled to meet business needs. This enables companies to remain agile without compromising governance over strategically important functions.

The hybrid model is particularly well-suited for organizations embarking on their first international expansion. It enables companies to reduce implementation complexity, accelerate market entry and access local knowledge while gradually

developing internal governance capabilities and organizational maturity. As experience grows, the balance between internal and externally supported activities can evolve, allowing the operating model to adapt to changing strategic priorities without requiring fundamental structural change.

It is best suited for Mittelstand companies looking to establish international capabilities while balancing strategic control with operational flexibility, particularly those pursuing their first GCC or expanding digital capabilities in a phased and resource-efficient manner.

Joint venture GCC: Sharing investment, risk and local expertise

A joint venture (JV) GCC represents a collaborative operating model in which the parent company and a strategic partner jointly establish, invest in and govern the GCC. Rather than building capabilities independently, both parties contribute complementary assets such as capital, local market knowledge, industry expertise or operational capabilities, while sharing responsibilities, risks and long-term value creation.

For Mittelstand companies, a JV can be an attractive option when rapid market access and local expertise are critical to success. Entering a new market often requires navigating unfamiliar regulatory environments, labor markets and business practices. Partnering with an experienced local organization can accelerate organizational setup, improve access to established talent networks, and reduce the complexity of establishing operations independently.

However, the shared nature of the model also introduces additional governance requirements. Strategic decision-making, investment priorities, operational processes and intellectual property

arrangements must be clearly defined from the outset. Effective governance structures, aligned objectives and a high level of trust among partners are, therefore, essential prerequisites for long-term success.

Without clearly established decision rights and transparent governance mechanisms, differing strategic priorities may limit organizational agility and complicate future capability development.

As a result, JV GCCs are generally less common among German Mittelstand companies than captive or hybrid models. They are most appropriate where access to specialized local capabilities or market knowledge outweighs the additional governance complexity, or where both

parties look to build a long-term strategic partnership with the option of gradually increasing ownership over time. Such arrangements may also serve as an intermediate step toward a fully owned captive operation as organizational maturity and local market experience increase.

These GCCs are best suited for organizations looking to combine strategic capability development with strong local market expertise, particularly where shared investment, risk mitigation and long-term partnership objectives justify the additional governance complexity.

Designing the delivery footprint: From single locations to global capability networks

Selecting an appropriate operating model is only the first step in designing a GCC. Companies must also determine how capabilities should be distributed across locations to best support business objectives, talent requirements and organizational resilience.

Historically, GCCs were typically established as single-site operations,

concentrating capabilities within one location to maximize economies of scale and simplify governance. While this approach remains appropriate for many organizations, advances in digital collaboration, cloud-based development environments and globally integrated operating models have enabled more flexible delivery footprints. Today, companies increasingly distribute capabilities across multiple locations according to the availability of specialized skills, business continuity requirements and long-term growth ambitions.

For German Mittelstand companies, the objective is rarely to establish the largest possible delivery center. Instead, the emphasis lies in creating a delivery footprint that remains manageable, scalable and aligned with strategic capability requirements. The delivery footprint should, therefore, reflect current operational needs and evolve as its international presence matures.

Single-site GCC

A single-site GCC concentrates all capabilities within one location and represents the most straightforward approach to global capability development. By bringing leadership, governance and operational teams together, this model simplifies organizational management, accelerates communication and facilitates the establishment of a unified corporate culture.

For companies establishing their first GCC, a single-site model often provides the most practical starting point. Governance structures remain relatively simple, investment requirements are concentrated and organizational complexity can be managed more effectively. The model also enables companies to develop local leadership capabilities before expanding into additional locations.

However, concentrating all capabilities in a single city also creates dependencies. Labor market dynamics, infrastructure constraints or regional disruptions may affect business continuity and future scalability. As capability requirements expand, many organizations evolve beyond a single-location model.

This model is best suited for companies establishing their first GCC with a focused capability portfolio and a preference for straightforward governance structures.

Virtual GCC

A Virtual GCC operates as an integrated organizational unit without requiring all employees to be located within a single physical office. Teams collaborate across multiple locations using shared digital platforms, standardized operating processes and common governance structures, functioning as one capability organization despite geographical dispersion.

The increasing adoption of hybrid work models and cloud-native collaboration environments has made virtual operating models considerably more viable than in the past. For knowledge-intensive activities such as software engineering, analytics or digital product development, physical proximity is often less critical than access to specialized expertise and effective collaboration mechanisms.

For Mittelstand companies, a virtual GCC can provide considerable flexibility during the early stages of their global expansion. It allows organizations to recruit talent across cities or regions without committing immediately to multiple physical locations, thereby broadening access to specialized skills while limiting infrastructure investments.

At the same time, successful virtual organizations require strong leadership, clearly defined governance, standardized delivery processes and a collaborative organizational culture. Without these foundations, distributed teams may experience communication challenges and reduced organizational cohesion.

A virtual GCC is best suited for organizations prioritizing access to specialized talent and operational flexibility, particularly where capabilities are knowledge-intensive and supported by mature digital collaboration practices.

Hub-and-spoke model

The hub-and-spoke model combines the benefits of organizational concentration with the flexibility of a distributed capability network. A primary GCC, the hub, provides overall leadership, governance and shared services, while additional locations specialize in selected capabilities, technologies or business functions.

Rather than replicating identical capabilities across multiple sites, organizations typically align each location with its comparative strengths. One city may focus on software engineering, another on product support or data analytics, allowing companies to access distinct talent pools while avoiding excessive dependence on a single labor market.

For German Mittelstand companies, the hub-and-spoke model offers an attractive pathway for incremental international expansion. Organizations can establish a manageable initial presence before selectively extending capabilities as demand grows. This approach enhances business continuity, supports access to broader talent ecosystems and reduces operational concentration risk without fundamentally changing the underlying governance model.

However, successful implementation requires greater organizational maturity than a single-site operation. Clear governance structures, standardized operating processes and effective cross-location collaboration become increasingly important as capabilities are distributed across multiple sites.

The hub-and-spoke model is best suited for organizations planning long-term international capability growth and looking to combine operational resilience with access to diverse talent ecosystems while maintaining central governance.

Establishing the GCC: Choosing the right implementation approach

Having selected an appropriate operating model and delivery footprint, companies must determine how to establish their GCC. While the target operating model defines the desired future state, the implementation approach determines how quickly capabilities can be built, how risks are managed and how organizational knowledge is developed throughout the transformation.

There is no universally preferred implementation model. The appropriate approach depends on several factors, including a company's international experience, available management capacity, investment appetite and desired speed of market entry. For many Mittelstand companies establishing their first GCC, implementation represents the most challenging phase of the journey, requiring expertise that often extends beyond their traditional core competencies.

The three implementation approaches most commonly adopted are Build–Operate–Transfer (BOT), assisted establishment and acquisition. Although each follows a different path, they all pursue the same objective:

creating a sustainable capability organization that supports long-term business strategy.

Build–Operate–Transfer (BOT)

Under a BOT model, an experienced implementation partner establishes and operates the GCC during an agreed transition period before transferring full ownership and operational responsibility to the parent organization. This approach enables companies to benefit from local market expertise, established recruitment capabilities and operational experience while reducing the complexity associated with entering an unfamiliar market.

For Mittelstand companies with limited international presence, BOT can significantly accelerate market entry and reduce execution risks during the early stages of capability development. By the time ownership is transferred, governance structures, operational processes and local leadership teams are typically well established, allowing the organization to assume responsibility from a stronger operational foundation.

Successful BOT arrangements, however, require careful planning from the outset. Governance structures, knowledge transfer mechanisms and transition milestones should be defined early to ensure that an organization is capable of operating independently once the transfer has been completed. BOT should, therefore, be viewed as a structured capability-building approach rather than merely an outsourced implementation project.

The BOT model is best suited for organizations looking to establish a wholly owned GCC while reducing implementation risk and accelerating market entry through temporary external support.

Assisted establishment

An assisted establishment model enables companies to retain ownership and

strategic responsibility for the GCC from the beginning while receiving targeted support during selected phases of the establishment process. External specialists may provide expertise in areas such as legal entity formation, site selection, recruitment, regulatory compliance, employer branding or program management, while overall governance remains with the company.

This approach offers considerable flexibility, allowing organizations to determine which activities should be performed internally and where specialized external expertise creates additional value. It also facilitates gradual capability development within organizations, enabling internal teams to build knowledge and assume increasing responsibility throughout the implementation process.

For many German Mittelstand companies, assisted establishment represents a balanced approach between full internal execution and more comprehensive implementation models. It allows organizations to preserve direct ownership and learning while mitigating specific risks associated with entering a new market.

This model is best suited for companies looking to build internal organizational capabilities from the outset while selectively leveraging external expertise in specialized implementation areas.

Acquisition

Acquisition represents the fastest route to establishing an operational GCC by acquiring an existing company, delivery center or specialized engineering organization. Rather than building capabilities from the ground up, companies gain immediate access to experienced talent, operational infrastructure, customer-independent delivery processes and, in many cases, an established employer brand within the local labor market.

For organizations operating in highly competitive talent markets, acquisition can substantially shorten the time required to achieve operational scale. It may also provide access to specialized technical capabilities that would otherwise require several years to develop organically.

However, acquisitions also introduce significant integration challenges. Organizational culture, leadership structures, operating processes and technology environments must be successfully integrated into the parent company's operating model. Consequently, the long-term success of an acquisition depends not only on identifying an attractive target but also on effective post-merger integration and organizational change management.

Acquisition is best suited for organizations seeking rapid access to specialized capabilities or established talent pools and possessing sufficient organizational maturity to successfully integrate acquired operations into their global operating model.

Selecting the appropriate GCC model: A strategic decision framework

Selecting a GCC model is ultimately a strategic management decision rather than an operational one. While operating models, delivery footprints and implementation approaches can each be assessed individually, their effectiveness depends on how well they align with a company's overall business strategy, organizational capabilities and long-term growth ambitions.

For German Mittelstand companies, there is rarely a *one-size-fits-all* solution. Organizations differ considerably in terms of ownership structure, international experience, financial resources and strategic priorities. A family-owned engineering company protecting highly specialized intellectual property will likely

arrive at a different solution than a rapidly growing industrial technology company looking to accelerate software development or expand digital service capabilities.

Consequently, GCC decisions should be guided by a structured evaluation of strategic objectives rather than by pre-defined delivery models. The most successful organizations first define the capabilities they intend to develop globally before selecting the organizational structures best suited to support those capabilities.

The following considerations typically shape the selection process:

Scale and investment appetite

The anticipated size of the GCC, expected growth trajectory and available investment capacity influence both the operating model and implementation approach. While larger organizations may justify significant upfront investment in wholly owned operations, many Mittelstand companies initially favor approaches that allow capabilities to expand progressively as organizational experience grows.

Strategic control and intellectual property

Capabilities that directly contribute to competitive differentiation, such as product engineering, software development, proprietary manufacturing technologies or AI-enabled products, often require higher levels of organizational control. The greater the strategic importance of knowledge and intellectual property, the stronger the need for governance structures that ensure long-term ownership and organizational integration.

Speed to market and access to talent

Competitive labor markets and rapid digital transformation frequently require

companies to establish capabilities within relatively short timeframes. Organizations must, therefore, balance the benefits of quick market entry with the time required to build sustainable organizational structures and internal leadership capabilities.

Risk tolerance and governance readiness

International capability development inevitably introduces organizational complexity. Companies with limited international experience may initially prefer implementation approaches that reduce execution risk while allowing governance capabilities to mature over time. Organizations with strong global experience may be better positioned to assume direct responsibility from the outset.

Employer brand and talent attraction

The ability to attract and retain highly qualified professionals increasingly depends on employer visibility within local talent markets. While globally recognized brands often benefit from

strong market awareness, many Mittelstand companies must actively establish their employer reputation through long-term engagement with universities, technology communities and professional networks. This consideration can significantly influence location strategy, recruitment models and implementation timelines.

Rather than viewing these criteria independently, companies should assess them collectively as part of an integrated operating model. The objective is not to identify an ideal GCC model, but to design a capability organization that reflects a company's strategic priorities while remaining sufficiently flexible to evolve over time. As organizations gain international experience, operating models, delivery footprints and governance structures should be reviewed regularly and adapted to changing business requirements. In this sense, establishing a GCC should be understood as an evolutionary capability-building journey rather than a single organizational decision.

Regulatory and policy landscape: What Mittelstand leaders need to know

For many German Mittelstand companies, regulatory complexity is often perceived as one of the principal barriers to establishing global operations. Questions relating to corporate structures, taxation, employment law or data protection can appear daunting, particularly for organizations embarking on their first GCC.

In practice, however, these considerations are well-established and can be addressed through appropriate planning, governance and specialist advice. The objective is, therefore, not to eliminate regulatory complexity but to incorporate it into the

design of the GCC from the outset. Early alignment across business strategy, legal structures, tax considerations and operational governance reduces implementation risks and provides a solid foundation for sustainable growth.

Rather than providing legal or tax guidance, this section highlights the principal governance and regulatory considerations that should be addressed during the planning and establishment of a GCC. As regulatory requirements differ across jurisdictions and continue to evolve, companies should seek appropriate legal,

tax and compliance advice based on their individual circumstances.

Tax governance, transfer pricing and intercompany arrangements

A GCC operates as part of an integrated corporate group. Consequently, clearly defined financial relationships between the parent company and the GCC are essential. These typically include transfer pricing arrangements, service agreements, intellectual property licensing, cost allocation mechanisms and intercompany governance processes.

Rather than viewing taxation solely as a compliance topic, companies should consider tax governance as an integral element of operating model design. Well-defined intercompany agreements help establish transparency regarding responsibilities, service scope, pricing mechanisms and performance expectations while supporting regulatory compliance across jurisdictions.

Given the complexity of international tax regulations, transfer pricing policies and bilateral tax treaties, companies should develop these arrangements in close cooperation with qualified tax advisors before operations commence. Early planning helps avoid unnecessary complexity as the GCC expands.

Data protection, privacy and cross-border data governance

Many GCCs process business-critical information, customer data, engineering documentation or proprietary software assets across multiple jurisdictions. Consequently, robust data governance has become a fundamental design consideration for internationally distributed operating models.

For European companies, compliance with the General Data Protection Regulation (GDPR)

remains a key consideration whenever personal data is processed outside the EU. Beyond regulatory compliance, organizations should establish clear governance for data ownership, access management, cybersecurity, information classification and cross-border data transfers.

As digital collaboration, cloud computing and AI-enabled services continue to expand, companies should integrate data governance into the overall GCC operating model rather than treating it solely as an IT or legal responsibility.

Intellectual property, contractual governance and export controls

For many German Mittelstand companies, intellectual property represents one of their most valuable strategic assets. Engineering expertise, proprietary technologies, software, manufacturing know-how and customer-specific innovations frequently constitute the foundation of long-term competitive advantage.

Accordingly, intellectual property considerations should be embedded into the design of the GCC from the outset. Clear contractual arrangements, appropriate confidentiality obligations, defined ownership of work products and robust governance structures help ensure that innovation activities remain aligned with a company's broader intellectual property strategy.

Depending on the technologies involved and the jurisdictions in which a company operates, applicable export control regulations and sector-specific compliance requirements should be considered. These considerations vary significantly across industries and countries and should, therefore, be assessed with appropriate specialist advice during the planning phase.

Employment framework and workforce governance

The success of a GCC ultimately depends on its people. While employment legislation differs significantly across jurisdictions, companies should focus not only on regulatory compliance but also on establishing consistent leadership principles, performance management approaches and organizational culture across locations.

For Mittelstand companies entering new labor markets, understanding local employment practices, recruitment dynamics, compensation structures and talent expectations is often equally important as knowing statutory employment requirements. Building an attractive employer proposition and investing in leadership development can significantly influence long-term talent retention and organizational stability.

Successful GCCs, therefore, combine local employment practices with globally consistent governance, enabling employees to operate as an integrated part of an enterprise rather than as a geographically separate organization.

Government incentives and innovation ecosystems

Many national and regional governments actively encourage investment in GCCs, R&D activities and high-value digital capabilities through financial incentives, infrastructure support, innovation programs and workforce development initiatives.

While incentives may improve the overall business case for establishing a GCC, they should rarely be the primary determinant of location selection. Sustainable success depends more fundamentally on access to talent, the maturity of local innovation

ecosystems, infrastructure quality and long-term scalability than on short-term financial benefits.

India provides a notable example of how industrial policy has supported the development of globally competitive capability ecosystems. Over the past two decades, national initiatives to improve the ease of doing business, strengthen digital infrastructure and promote innovation have been complemented by increasingly targeted state-level policies aimed at attracting GCCs and engineering-intensive investments. Several states, including Karnataka, Telangana and Tamil Nadu, have introduced dedicated programs to support R&D activities, engineering services, digital capabilities and technology investment through a combination of infrastructure, skills development and innovation incentives. These initiatives reflect India's strategic ambition to position GCCs not only as service delivery organizations but as centers for engineering, product development, research and innovation.

For Mittelstand companies, the relevance of these initiatives extends beyond financial incentives. Government support has contributed to the development of broader innovation ecosystems comprising universities, research institutions, technology clusters, start-up communities and specialized talent pools. These ecosystem characteristics frequently have a long-term impact on innovation capacity and talent availability than financial incentives alone.

Companies should, therefore, evaluate government programs as one component within a broader location assessment that considers talent availability, business environment, infrastructure, regulatory stability and ecosystem maturity, alongside financial support measures.

Executive readiness checklist

Decision area	Key questions for leadership
Business strategy	Have we clearly defined the long-term business mandate of the GCC?
Operating model	Does the selected operating model support engineering ownership and future expansion?
Governance	Have governance, taxation, transfer pricing and intercompany agreements been designed before operations commence?
Data and cybersecurity	Can engineering and business data be governed consistently across Germany and India?
Workforce	Have we developed a comprehensive talent strategy beyond recruitment?
Ecosystem	Does the selected location provide sustainable access to engineering talent, universities and innovation ecosystems?
Intellectual property	Is ownership of engineering outputs and innovation clearly defined?
Operational resilience	Have cybersecurity, business continuity and vendor governance been incorporated into the operating model?
Future growth	Can the GCC evolve into a regional engineering and innovation hub serving Europe, APAC and the Middle East?

A phased roadmap for establishing a future-ready GCC in India

Establishing a GCC should be viewed as a phased transformation rather than a one-time setup. Regulatory requirements, governance priorities and business expectations evolve as the GCC matures. Organizations that anticipate this progression are better positioned to expand their mandate without introducing unnecessary operational complexity.

Phase	Primary objective	Leadership priorities	Regulatory and governance focus	Expected outcome
Assess and design	Validate the business case and define the GCC strategy	Define the long-term business mandate, evaluate India against alternative locations, select the operating model, identify the preferred city and capability focus	FDI eligibility, legal entity evaluation, tax assessment, regulatory due diligence and state-level policy assessment	Approved GCC strategy with a clearly defined business case and operating model
Establish and Govern	Create the legal and operational foundation	Incorporate the entity, recruit leadership, establish governance, initiate hiring and define enterprise operating processes	Company incorporation, intercompany agreements, transfer pricing, employment compliance, data governance and intellectual property framework	Operationally ready GCC with governance, compliance, leadership and foundational capabilities in place

Phase	Primary objective	Leadership priorities	Regulatory and governance focus	Expected outcome
Scale and integrate	Expand engineering capabilities and strengthen enterprise integration	Increase engineering ownership, build domain expertise, establish university partnerships and integrate with global product and engineering teams	Cybersecurity, business continuity, vendor governance, audit readiness, IP management and regulatory reporting	GCC transitions from an execution center to an integrated engineering and digital capability hub
Innovate and lead	Position the GCC as a strategic innovation center	Lead product engineering, AI initiatives, cloud transformation, advanced manufacturing programs and regional capability development across APAC and the Middle East	Enterprise risk management, advanced IP governance, ESG reporting, cross-border regulatory governance and innovation governance	A mature GCC serving as a strategic engineering, digital and innovation partner for global enterprises

Key takeaways and strategic recommendations

The central conclusion of this paper is straightforward: for the German Mittelstand, a GCC is no longer a sourcing option or a low-cost delivery location. When well designed, it becomes an enterprise capability that can strengthen competitiveness, extend the reach of scarce expertise and accelerate the conversion of industrial knowledge into software, data, services and customer value. Cost efficiency remains relevant, but it should support the business case rather than define the ambition.

The board agenda can, therefore, be framed around three questions. Why should globally distributed capabilities be part of the long-term strategy? Why is India uniquely positioned materially multiply those capabilities? How can enterprises move with sufficient discipline to preserve control, manage risk and build organizational confidence? The answers suggest a measured but decisive course: retain the Mittelstand’s engineering identity and governance strengths, extend them through India and scale only as business value and operating maturity are demonstrated.

GCC as a long-term strategic lever for Mittelstand competitiveness

Mittelstand competitiveness has traditionally built on deep engineering knowledge, product quality, close customer relationships and patent ownership. Those strengths remain decisive; what is changing is the capability base required to sustain them. Industrial products are becoming more software-defined, operations are more data-driven, and customer value is increasingly linked to connected services, AI, automation and continuous upgrades. At the same time, Germany's demographic trajectory and persistent skills shortages make it progressively harder to assemble every critical capability domestically. More than 40 percent of German SMEs currently report difficulty filling vacancies, and official population projections indicate a continued decline in the working-age population as the baby-boomer generation retires. A GCC offers a way to respond without weakening the foundations of the business.

The strategic purpose of a GCC is to extend the enterprise, not export its core. Product vision, customer commitments, architectural authority and accountability for intellectual property can remain anchored within the company, while globally integrated teams assume clear ownership of selected product modules, engineering platforms, data domains or digital operations. This is not about transferring a series of tasks to a remote labor pool; it is about building an additional pool of institutional capability that learns the company's products, processes, customers and quality expectations over time.

For family-owned companies and Hidden Champions, this distinction is crucial.

A well-governed GCC can help preserve accumulated know-how as experienced employees retire, increase the capacity available for product renewal and reduce dependence on a small number of domestic specialists or external suppliers. It can also create an organizational bandwidth to pursue digital offerings that might otherwise remain secondary to immediate operational priorities. The objective is not growth in headcount for its own sake. It is higher capability density, faster innovation throughput, stronger continuity and greater options when markets, technologies or supply chains change.

This is why the GCC mandate should be set at the board level. Owners and directors should define it in terms of competitive outcomes: which capabilities are scarce, where greater speed or resilience is needed, what knowledge must remain under direct governance, and which business results the center should influence. Funding classification should not be confused with strategic intent; a GCC may be accounted for as a cost center while still serving as a long-term capability and value-creation platform. The board's role is to keep that distinction clear and ensure that near-term savings do not crowd out the investments needed for leadership, integration, learning and innovation.

India as a capability multiplier, not just a cost lever

India's advantage is not any single factor, but the combination of engineering scale, digital specialization, experienced GCC leadership, mature technology and service provider networks, universities, startups, and established operating infrastructure. Together, these allow a company to build

multidisciplinary teams across software engineering, embedded systems, cloud, data, AI, cybersecurity, analytics and digital manufacturing, connecting these teams with product and domain expertise in Germany. The multiplier effect arises when these capabilities reinforce one another, not merely from delivering equivalent roles at a lower unit cost.

The surrounding ecosystem is equally important. According to NASSCOM's latest five-year landscape, India hosts more than 1,700 GCCs employing over 1.9 million people; more than half have advanced into portfolio or transformation hubs; and almost 90 percent are multifunctional. NASSCOM also identifies more than 120,000 AI/ML professionals and over 185 dedicated AI/ML CoEs. This maturity reduces the market-building burden for an incoming Mittelstand company. It provides access to talent, implementation partners and specialist firms; academic relationships and startup innovation pipelines; and leaders experienced in globally distributed delivery. For first-time entrants in India, this ecosystem shortens the learning curve and provides several routes to establish, test and expand a focused GCC mandate.

Boards should avoid viewing India as a uniform labor pool or assuming scale equals value. City selection, employer visibility, leadership quality, career architecture and the relevance of work all shape access to talent and retention. A focused engineering hub, with respected local leadership and meaningful product ownership, can create more value than a larger center built around fragmented tasks. Cost advantages should be captured, but a portion of that capacity should be reinvested in training, automation, engineering platforms, cybersecurity, leadership development and ecosystem partnerships. This discipline converts savings into a compounding capability advantage.

India should also be positioned within a complementary European and global footprint. Nearshore Europe offers time-zone proximity, regulatory alignment, cultural familiarity and close interaction with headquarters and customers. India contributes breadth, specialist depth, scalability and extended execution capacity. The strongest architecture assigns work according to these structural advantages rather than forcing a choice between locations. For many Mittelstand companies, this may indicate retaining product strategy and customer intimacy in Germany, using nearshore teams for proximity-intensive activities, and building an India-based capability core for engineering, digital platforms, data, AI and innovation at scale.

Mittelstand-specific playbook: Risk-mitigated entry, phased scale and change management

The right playbook is neither *build everything nor outsource and transfer later*. It is a sequence of deliberate commitments where the mandate, operating model, governance, talent strategy and organizational readiness mature together. Mittelstand companies can begin at a manageable scale without limiting their long-term ambition. The following actions translate this principle into a board agenda.

- **Begin with a capability thesis:** Define the business constraint before selecting a city, partner or legal structure. The first mandate should address a real enterprise priority, for example, embedded software, a cloud or data platform, AI-enabled engineering, product lifecycle capabilities, cybersecurity or digital operations, and should be substantial enough to attract strong talent. Set explicit boundaries for product authority, data access, intellectual property, risk and investment. A clear charter prevents the center from becoming a collection of unrelated tasks.

- **Match the model to control and readiness:** Choose among captive, hybrid or joint venture structures based on the strategic importance of the capability, IP control needs, available management bandwidth, investment appetite and governance maturity. Select BOT, assisted establishment or acquisition as the entry pathway based on time-to-market and execution risk instead of the trend. For many first-time entrants, a hybrid or partner-assisted model can provide strong local execution while the company retains the mandate, architecture, data and future ownership. The same discipline should guide the delivery footprint: begin with a coherent hub and add virtual, nearshore or second-city capacity only when the business case is clear.
- **Establish leadership and governance before scaling:** Appoint a leader in India, with business and engineering credibility, not just delivery experience. Define decision rights between headquarters, business units, product owners, the GCC and partners before the first major transition. Put intercompany arrangements, transfer pricing, data governance, cybersecurity, IP ownership, export-control review, talent policies and escalation mechanisms in place early. Good governance should accelerate responsible decisions; it should not become an additional layer of approvals.
- **Operate as one enterprise from the outset:** Organizational change management must begin during design, not after hiring. Leaders should explain why the GCC is being created, how domestic and India-based roles complement each other, and what

remains under shared accountability. Joint product backlogs, common engineering standards, shared performance reviews, regular leadership exchanges, short-term rotations and communities of practice can turn distributed teams into one operating system. Set explicit working norms for communication, escalation, feedback, meeting discipline and decision-making. Trust in distributed engineering teams is built through repeated delivery and transparency, not through corporate messaging alone.

- **Scale after proof, not before:** Begin with a focused portfolio, establish stable leadership, deliver visible outcomes and expand only when quality, security, integration and stakeholder confidence are evident. The case for the next wave should be based on deeper ownership or additional business value, rather than an arbitrary headcount target. This approach protects capital discipline, reduces operational diffusion and gives the organization time to learn cross-border governance.
- **Measure the value the enterprise intends to create:** Cost per FTE and budget adherence remain useful operating metrics, but they are insufficient board measures. The scorecard should progressively include time-to-market, release predictability, engineering quality, defect prevention, automation, platform reuse, capability ownership, talent continuity, resilience, contribution to IP, and influence on revenue, CX or working capital where relevant. Headquarters and GCC leaders should align on definitions and targets; otherwise, the center may be tasked with innovation while being managed primarily as a low-cost labor pool.

- **Evolve the mandate as maturity grows:** A successful GCC should progress from reliable execution to owning products, platforms, engineering domains or enterprise capabilities. Each expansion should come with the corresponding authority, leadership depth, controls and career paths. Boards should review the mandate periodically against technology shifts, business strategy, talent risk, geographic concentration, partner dependence and value delivered. The end state is not a predetermined size or ownership model; it is a trusted, adaptive global capability that can align with the enterprise.

The practical message for Mittelstand leaders is, therefore, disciplined ambition. Start with a business-critical capability, protect the company's differentiators, use partners to reduce entry risk where appropriate, and build the leadership and cultural bridges that enable distributed ownership. India can offer depth and momentum, but the parent enterprise must provide purpose, context, trust and governance. When these elements align, the GCC becomes more than an offshore center; it becomes a durable extension of the Mittelstand company's engineering heritage and a platform for its next chapter of competitiveness.

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The Indo-German Chamber of Commerce (IGCC), also known as AHK Indien, is a trusted and long-established institution recognised in both India and Germany. Since 1956, IGCC has strengthened economic and business ties between the two nations, helping companies turn India's growing economic potential into lasting partnerships through trade, talent and innovation.

IGCC is part of the worldwide AHK (Auslandshandelskammer) network , 150 locations across 90+ countries and around 48,000 member companies , supported by the German Federal Ministry for Economic Affairs and Energy (BMWE) and coordinated by the German Chamber of Commerce and Industry (DIHK) with the IHKs across Germany. Headquartered in Mumbai, with regional offices in Pune, Delhi, Kolkata, Bengaluru, and Chennai, IGCC combines regional expertise with nationwide reach. Its Düsseldorf office serves as the Chamber's gateway in Germany, coordinating an India Desk network of 18 German chambers and hosting the annual Jahrestreffen, Germany's largest India-focused business event. As a membership organisation, IGCC offers members platforms for dialogue, industry and policy insights, tailored business services, and institutional representation , including flagship Functional Workshops across HR, Finance & Tax, Legal, Marketing, Sustainability, Supply Chain and Digitalisation. Under the DEinternational brand, IGCC provides single-window solutions covering business advisory, events, business delegations, trade fairs, office-in-office space, communications, SustainMarkets training, and export credit guarantees.

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