ER&D and product development
GICs - Innovation is the way forward
Foreword

Corporates today find themselves amidst challenges borne by increasing digitalization, growing prominence of emerging markets, new breed of digital startups and all-time-high customer expectations. It is no wonder the lifespan of S&P 500 companies has decreased from 61 years in 1958 to an average of 18 years now. Fostering an innovative mindset has never been more important in order to ensure survival.

India's prowess in software domain, maturing innovation ecosystem, rapidly expanding engineering and digital talent pool, and the nation's fast growing strategic relevance for global corporations as a sourcing and selling destination of choice, have together created a real opportunity for the nation to emerge as a global hub of innovation and R&D excellence.

Key stakeholders such as the government and the investment community are also aligned. The government's flagship 'Make in India' initiative calls for more and better value-driven R&D to position India as the high-value manufacturing hub of the world. Private equity investors are lining investments in innovative and R&D centric startups. Domestic financial institutions are becoming increasingly open to lend resources to innovative entrepreneurs.

The prospect for Indian Global In-house Centres to evolve into innovation hubs of the global corporations has never been brighter. This report highlights the current state of innovation in GICs and key strategic actions that could make them more innovative. If all the stakeholders work in tandem, India's positioning could change from a cost saver destination to an innovation hub.

Our intensive discussions with more than 15 E&E R&D GIC leaders, facilitated with the help of NASSCOM, have revealed that quite a few GICs are leading the local innovation agenda, have ownership of end-to-end product development, and are increasingly being seen as the innovation partner for the parent. There are, however, several challenges that the GICs face in their innovation journey – absence of an innovation mandate from the parent organisation, limited access to good quality engineering talent and the lack of a differentiated strategy to innovate. Best in class GICs most often forge a clear innovation strategy which is communicated across the organisation, have innovation-specific metrics for dedicated teams, encourage collaborative culture and focus on hiring innovators.

Before signing off, we wish to thank NASSCOM for facilitating interviews with the senior leaders of the various E&E R&D GICs. We are also very thankful to the senior leaderships of these GICs who took out time to share their valuable perspectives on the various innovation challenges and opportunities.

K S Viswanath
VP - Industry Initiatives
NASSCOM

Avnish Sabharwal
Managing Director
Open Innovation,
Accenture India
Innovation is the only way for corporations to stay relevant in the fast changing dynamic world. 52% of Fortune 500 companies have disappeared since 2000. Ultimately, the challenge faced by all companies is to stay relevant and stay on top of the disruption without losing control of operations.

In the last decade, India has emerged as the location of choice for offshoring Engineering, Research and Design (ER&D) services for global corporations. At present, 46 of the top 50 ER&D spenders and 45% of the top 500 global R&D spenders have their centres in India. Through this association, India has staked its claim to be at the forefront of product and technological innovation, with several successful products developed locally and exported globally.

The importance of innovation agenda and focus on digital adoption by the parent company, has provided an opportunity for Indian GICs to leverage their expertise and India's software prowess to become innovation partners of their parent companies.

Some GICs have been more successful in promoting the innovation agenda through structured approaches, e.g. GIC Head reporting directly to CTO, focus groups for developing new products, and end-to-end ownership of global product lines. However, majority of the GICs remain focused on delivery. The real problem behind failing to innovate lies at a much more strategic level and needs to be tackled by making significant – not incremental – changes to the operating model. We noticed that successful GICs work on the following to create a solid foundation for innovation:

- Create a clearly understood and integrated value proposition for the GIC that complements the overall vision of the parent organisation and ensure that the vision percolates to the lowest levels in the organisation
- Make the leadership accountable on innovation metrics and encourage them to lead by example
- Have a dedicated team of experts to lead the open innovation initiatives and leverage platforms such as crowdsourcing to source innovative ideas
- Focus on hiring innovators and problem-solvers, rather than focusing on hiring only programmers
- Increase emphasis on serving India’s domestic market despite its relatively smaller revenue share and focus on reverse innovation by exporting products from India
- Have a clearly defined idea-to-product lifecycle management and allocate separate funds for innovation-related activities

While the responsibility of evolving to the next phase of growth rests on GICs, support from the parent organisation is critical to ensure success. It is also in the best interest of the parent to help GICs become an innovation hub as that will support expansion in local market and reduce their innovation cost. GICs also need extensive support from the other stakeholders involved – the government and industry bodies. All these stakeholders need to work in tandem to ensure that India transforms into an innovation and ER&D hub.
Innovation – Need of the Day

According to a recent survey, lifespan of S&P 500 companies has decreased from 61 years in 1958 to an average of 18 years now. According to another research, 52% of Fortune 500 companies have disappeared since 2000. Ultimately, the challenge faced by every company is to stay relevant and stay on top of the disruption without losing control of operations.

Innovation has emerged as a key driver of differentiated and disruptive value creation for large corporates amidst changing market scenario. Corporates today find themselves amidst challenges which can only be solved through fostering an innovative mindset within their organisations. Some of the challenges are the following.

1. **Prominence of Emerging Markets** – The ER&D spend of organisations has been rising to stay ahead in the innovation game. What is more interesting is that Asia has been at the forefront of this growth and is expected to have the highest ER&D spend in the world by 2020.
With the increasing growth potential in these markets and growing competition from local players, localization of products for emerging markets is gaining prominence.

2. **Rapid Digitalization** – Several engineering organisations are embracing digital technologies to build seamless and connected products. Next-generation technologies like IoT will enable a more connected world. Devices have become smarter and ER&D processes have become more complex; this trend is expected to continue in the future.

“We have 23,000 engineers. About half of them are software engineers developing software. The beginning stages of the IT revolution have been more focused on creating digital-to-digital experiences — For example, connecting your iPhone to a website in order to buy stuff. With the Internet of Things, however, we are going to a physical kind of a phase in the IT revolution, and that’s very different.” –David Cote, CEO, Honeywell.

3. **Startups** – There is a new breed of low-cost digital startups that are competing with well-entrenched industry players. The secret to their success? They have built business models that can keep up with—as well as take advantage of—the ever-accelerating pace of technology-driven change that defines our times. As a result, they are scaling swiftly—at least 10 times faster than other companies competing in the same space. Big incumbents realize the challenge posed by these swift and new age technology companies and are strengthening their internal innovation ecosystem.

4. **Changing Consumer Behavior** – Convergence of digital forces like mobility, analytics, cloud and social media are driving the emergence of more connected products. Consumers increasingly demand seamless connected experience and the feedback spreads like wildfire. Therefore, the next generation of products should be focused at enhancing customer experience by making the products more connected and adaptive to their dynamic operating environment.

Innovation is the only way for corporations to stay relevant in the fast changing dynamic world. Be it product innovation, process innovation or technological innovation, organisations understand the need to invest and focus on promoting innovation in their organisational setup. The twin forces of growing domestic market and digital adoption by MNCs offer an opportunity for India-based GICs to take the lead in becoming the innovation partners of their parent organisations.
India Value Proposition

In the last decade, India has emerged as the location of choice for offshoring Engineering, Research and Design (ER&D) services for global corporations. At present, 46 of the top 50 ER&D spenders and 45% of the top 500 global R&D spenders have their centres in India. Through this association, India has staked its claim to be at the forefront of product and technological innovation, with several successful products developed locally and exported globally.

India’s prowess in software domain, maturing innovation ecosystem, rapidly expanding engineering and digital talent pool, and the nation’s fast growing strategic relevance for global corporations as a sourcing and selling destination of choice, have together created a real opportunity for the nation to emerge as a global hub of innovation and R&D excellence.

Key stakeholders such as the government and the investment community are also aligned. The government’s flagship ‘Make in India’ initiative calls for more and better value driven R&D to position India as the high-value manufacturing hub of the world. Private equity investors are lining investments in innovative and R&D centric startups. Domestic financial institutions are becoming increasingly open to lend resources to innovative entrepreneurs.
In our research, we profiled 15 ER&D GICs in India, through primary interviews and secondary sources, covering a broad range of industries including Aerospace, Engineering services, Technology, E-Commerce, Retail, Telecom Equipment Manufacturers and Diversified Conglomerates. While we have relied heavily on primary interviews, a couple of organisations could not participate in the study and in such cases we have relied on secondary sources to formulate our analysis.

The four buckets are explained in greater detail below.

### Current State of Innovation in ER&D GICs

Although many ER&D GICs look to transition to a “Strategic Partner”

#### Innovation in Silos
- Individual function based, e.g. application development, PE, etc.
- Limited autonomy for decision making
- Scale-led efficiency
- Existence of functional silos
- Metrics aligned to cost and productivity
- No surprises culture, minimal appetite for taking risks
- Focus on delivery excellence enforced through tightly controlled SLAs
- Performance benchmarking

#### Value Beyond Delivery
- Leader reporting to a level below C-suite
- Driving efficiency through assets and automation (below the line innovation)
- Limited global product ownership but end-to-end process visibility
- Supporting expansion in India and emerging markets
- Creating CoEs for specific skills or functions, e.g. testing, embedded software

#### Cost Saver
- Special focus groups for innovation
- Leader reporting a level below C-suite, e.g. Head of R&D
- Differentiated salary structure for select group of employees
- Different metrics of the focus group from the rest of the organisation. E.g. no. of ideas generated / converted to products
- Limited examples of product ownership
- CoEs for niche skills and some examples of exclusive skills, e.g. IoT CoE

#### Desired State
- Increasing end-to-end product ownership for 1–2 global product lines
- Integral partner in both designing and executing firm’s product strategy and/or leading digital agenda. Digital engineering hub for parent.
- Focus is on localisation of products, leading to reverse innovation
- Conception design, IP creation and prototyping skills
- Focus on core research, e.g. high performance computing, machine learning, robotics, advanced material research, avionics, connected health, etc.
- Critical mass of niche digital skills like Analytics / Big Data, IoT, Cloud, Cyber Security
- GIC lead reporting to Board or CEO or CTO
- Metrics aligned to parent or BU objectives
In our study, we found that although many GICs desire to become the strategic partner of the parent organisation, almost 50% are still in the “innovation in silos” category or below. It is also interesting to note that, of the remaining 50 percent GICs who are in the “strategic partner” bucket, the majority of the GICs are internet and retail organisations.

Almost all of the manufacturing and R&D organisations fall in the “innovation in silos” category or below. There are certain challenges emerging largely from the delivery focused mindset that has been ingrained in these GICs. The following section elaborates on the challenges faced by these GICs that are holding them back from being an innovation partner of the parent organisation.

Current State of Innovation in ER&D GICs

we found that ~50% of Engineering, Research and Development GICs are still positioned at “innovation in silos” or below
### GIC Nomenclature

<table>
<thead>
<tr>
<th>Company</th>
<th>Description</th>
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<tbody>
<tr>
<td>A</td>
<td>Telecom Equipment</td>
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<tr>
<td>B</td>
<td>Energy Management &amp; Automation</td>
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<tr>
<td>C</td>
<td>Aerospace</td>
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<tr>
<td>D</td>
<td>Diversified</td>
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<td>E</td>
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<tr>
<td>F</td>
<td>Diversified</td>
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<tr>
<td>G</td>
<td>Networking Equipment</td>
</tr>
<tr>
<td>H</td>
<td>Aerospace</td>
</tr>
<tr>
<td>I</td>
<td>Retail</td>
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<tr>
<td>J</td>
<td>Manufacturing and Engineering Services</td>
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<tr>
<td>L</td>
<td>Technology</td>
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<tr>
<td>P</td>
<td>Technology</td>
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<tr>
<td>Q</td>
<td>Retail</td>
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<tr>
<td>R</td>
<td>E-Commerce</td>
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<tr>
<td>S</td>
<td>E-Commerce</td>
</tr>
</tbody>
</table>

* Note – While we have relied on primary interviews, a couple of GICs have been benchmarked using secondary sources.
We developed a GIC maturity framework, which was used to map GICs into four buckets:

<table>
<thead>
<tr>
<th>Characteristic</th>
<th>Onshore/Offshore Cost Saver</th>
<th>Value Beyond Delivery</th>
<th>Innovation in Silos</th>
<th>Strategic Growth Partner</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Strategic Positioning</strong></td>
<td>Functional or Business Unit Silos Delivery focus</td>
<td>Multi-function centre Value focused</td>
<td>Partially authoritative and partial accountability</td>
<td>Multi-function centre Independent services entity with a leader reporting to the C-suite</td>
</tr>
<tr>
<td><strong>Governance Structure</strong></td>
<td>Discrete activities and focus on cost minimisation Adherence to SLAs/KPIs</td>
<td>SLAs and KPIs defined to measure value-add and efficiency improvement</td>
<td>Complete accountability of specific product development CoEs for niche skills</td>
<td>The GIC either has end-to-end capability or houses critical mass for certain specialisations Strategic allocation of R&amp;D spend</td>
</tr>
<tr>
<td><strong>Innovation</strong></td>
<td>Focus on delivery efficiency rather than innovation Limited R&amp;D spend allocated to captives</td>
<td>Services partner focused on enhancing efficiency and driving enhanced business outcomes</td>
<td>Metrics to measure value added activities Structured space for innovation</td>
<td>Integral partner in executing business strategy and driver of innovation Pioneer for value creating activities IP creation and knowledge services</td>
</tr>
<tr>
<td><strong>Talent</strong></td>
<td>Single function capabilities Limited collaboration with Head Quarter counterparts</td>
<td>Multi-function capabilities Some collaboration with Head Quarter counterparts</td>
<td>Mix of capabilities Select opportunities for working on end-to-end products</td>
<td>CoE becomes “employer of choice”. Leadership representation in emerging markets</td>
</tr>
<tr>
<td><strong>Funding Model</strong></td>
<td>The GIC is a cost centre and funding is received based on mandate</td>
<td>Engaged in parts of new product development based on ad hoc requirements and billed on a resources/project basis</td>
<td>Well defined idea to product journey Innovation funds allocated as part of R&amp;D budget</td>
<td>The CoE has innovative outcome-based value creation arrangement with HQ like gain sharing or pay for performance The captive may have alternative sources of income</td>
</tr>
</tbody>
</table>
The genesis of most GICs in India was guided by cost savings. While the GICs have shown instances of IP creation and product innovation, the culture continues to focus on delivery. The metrics, ecosystem and culture are centred on excelling at delivery. Some of the challenges are, emerging from the mindset are listed in detail below.

### Key Challenges

There are challenges across Strategy, Talent and Structure that inhibit innovation in ER&D GICs

- **Innovation Mandate**
  - For GICs to be innovative, first and foremost criteria is to have an innovation mandate from the parent

- **Unfavorable Tax Policies**
  - Weak IP protection policies
  - No incentives related to collaborative innovation
  - Outsourcing R&D does not get benefits of scientific research

- **Lack of Ecosystem Connect**
  - Start-up ecosystem is thriving in India, but collaboration with GICs remains a challenge

- **Limited Collaboration**
  - Lack of end-to-end product visibility
  - Limited access to relevant business problems

- **Digital and Engineering Talent**
  - Limited access to talent in digital and engineering
  - Retaining talent with niche skills is expensive

- **Innovation Culture**
  - No formal innovation policy
  - No structured incubation platform for converting ideas to products
  - Stringent budgetary controls

- **Limited Collaboration**
  - No innovation mandate from parent company
  - No representation/influence on corporate’s board
No Innovation Mandate from the Parent Organisation

This is an over-arching challenge that most GICs in our study faced. Parent organisations often continue to view GICs in India as a cost-saving and an offshoring facility, working on non-critical low-value work. Although several GICs have shown exemplary commitment towards innovation, the parent organisations often do not provide a mandate for the GICs to innovate. As a result, the innovations at the GICs occur in silos, without a structured process or dedicated resources in place that encourages innovative thinking.

The GICs may have all the right capability, intent and resources; but without a clear mandate from the parent, innovation always takes a backseat.

Limited Collaboration

Another inhibiting factor resulting from working offshore is that engineers are often disconnected with the Business Units that are based in Head Quarter. Engineers at GIC typically work on a part of the product that is many times low on criticality, while the majority of IP related work is undertaken at Head Quarter. As a result, GICs do not gain end-to-end product development capabilities and their involvement remains limited to non-critical activities. Working offshore also means being far away and often disconnected with customers. As a result, engineers are often unaware of the customer pain points. This inhibits innovative thinking since the engineers often do not have clarity on the business problem that is being solved.

Limited Eco-system Connect

Many leaders today believe that a lot of the innovative ideas are sourced from outside the four walls of the organisation. With the advent of digital technologies and social media platforms, collaboration with the external eco-system has become more accessible. Techniques like crowd-sourcing are used extensively today to generate ideas for new products and designs. In our study, however, we found that very few GICs are able to leverage these digital platforms and external connects to foster innovation.

The start-up ecosystem is thriving in India. Leaders of large organisations have accepted that startups have disrupted their conventional ways of thinking and have brought in a holistic approach to product development. Although several GICs have tried to collaborate with startups to co-develop and co-license products and technologies, very few GICs have been successful at doing so.

Lack of Innovation Culture

Employees are the most critical source of generating new ideas. But in most GICs, employees face many obstacles in pursuing their ideas due to strict budgetary controls and inflexibility of the management to provide time for the engineers to innovate. The absence of a formal innovation policy leads to the following challenges:
Employees often do not have time to innovate. Management treats idea development as a "night job" which acts as a discouragement.

- Employee evaluation metrics/KPIs do not give much weightage to innovation. Failed innovation is reflected negatively in performance evaluation.
- Absence of a structured incubation platform for converting ideas to products. Often there are no funds to invest in idea development.

Limited access to Digital and Engineering Talent

Parent organisation's primary expectation from GICs most often revolves around cost and efficiency improvements. In turn, GICs have also built their workforce to deliver on these expectations. Although India produces the maximum number of engineers every year, quality talent in the digital and engineering domain is not easy to come by. More so, quality talent is expensive to retain. Hence, GICs are still holding on to their legacy talent strategy of hiring developers, not innovators, which is proving to be a deterrent in their innovation journey.

Unfavorable tax policies in India

Despite having several policies that promote innovation, India's implementation of IP policies is not adequate.

India also lags behind in incentives related with collaborative innovation – the collaborative R&D tax credits are non-existent. India also does not provide incentives on the commercialisation of innovation – the incentives are provided for research expenditures only.

Under Section 35 (2AB) of the IT Act 1961, weighted deduction of 200% is available for expenditure incurred for scientific research on in-house R&D facility approved by the Department of Scientific and Industrial Research (DSIR). These benefits are applicable on both revenue and capital expenditure. However, this does not allow deduction on expenditures related to outsourcing R&D activities and on lease rent paid for research farms/labs, which is a pain point for GICs looking to innovate.
Despite the challenges, some GICs fare better at innovation than others. The leading companies have aligned strategy, talent and structure to enable innovative thinking in their organisations. Through our study, we have identified few best practices and converted those to suggested strategic action items for GICs.

**Actions for GICs**

Successful GICs work on the following to create a solid foundation for innovation:

- Create a clearly understood, integrated and memorable value proposition for India GIC that complements the overall vision of the parent and measure progress vis-à-vis the stated vision.
- Strategic partnerships with service providers, business units to increase end-to-end ownership and strengthening digital prowess.
- Create separate funds and teams for innovation tied to a specific objective.
- Provision for innovation time and funds for all employees with a provision for incubation of selected ideas.
- Allocate funds for open innovation with built in flexibility of usage.
- Focus on innovation for India’s domestic market or emerging markets.
- Identify high-potential market segments in India and create dedicated teams, comprising of GIC Engineers and Local BU Marketing, to create breakthrough products.
- Export local innovation to global market.
- Leadership to be held accountable on innovation metrics/KPIs, measured periodically.
- Create a digital platform for enhancing collaborations.
- Rotate leadership across BU, across globe and across functions.
- Form group of innovation catalysts comprising GIC champions and outside entrepreneurs.
- Undertake the role of managing corporate’s innovation initiatives in India.
- Idea discovery via startup, university collaboration, crowdsourcing etc.
- Have a dedicated team of experts for screening ideas.
- Accelerator/incubation programs for selected ideas.
- Build brand as an employer-of-choice to attract “innovators”.
- Assess prospective employees on problem solving skills and innovation potential.
- Seed an intrapreneurial culture by hiring/engaging successful entrepreneurs, enabling innovation, re-skilling current employees and rewards.
- Institute attractive expat relocation program for Sr. Management in RD&E teams at HQ.
Value Proposition for Innovation
Having the right strategy and value proposition in place is the foundation to successful implementation of GIC vision. Indian GICs are focusing on developing the following value propositions for the parent companies –

1. Digital Hub – Many GICs are leveraging the software prowess of Indian ecosystem and working towards creating a digital hub in India. There have been many instances of GICs fostering strategic partnerships with service providers to strengthen their digital prowess. E.g. 33% skillset of machine learning CoE of an internet company is based out of India. Another internet company has CoEs in infrastructure platform (cloud and associated areas) and trust and analytics (verification, identity) based exclusively in India.

2. Growth Enabler – Many GICs are working towards developing end-to-end ownership of key products through closer partnerships with business units. They have also focused on local innovation which are sometime exported globally. E.g. Google has developed various applications in India like map maker, offline videos and streamline search for smaller internet.

Examples of memorable and clearly understood intent of GICs

• GE – “Locally relevant and frugal innovation”
• Philips – “Philips innovator of choice for emerging markets”
• Walmart Labs – “Walmart’s new Digital Foundation”

Having defined value proposition, GIC leadership needs to drive the message to parent organisations, GIC team and also other GICs that may exist in other geographies. This will ensure an alignment of the strategy with the organisational structure and the talent in the organisation.

Leadership and Culture

Most of the traditional engineering companies have deep manufacturing roots resulting in a very process and efficiency driven culture. GICs need to disentangle from processes that are hindering innovation and instead create KPIs that encourage people to innovate. The organisation culture should be such where failure is acceptable and employees feel comfortable in voicing their opinions. To operationalise such a cultural transformation, we recommend the following actions:

• Innovation Catalysts: Create a structured team of change drivers / innovation catalysts who would dedicate a certain portion of their time to drive innovation initiatives:
  ° Help percolate GIC’s innovation agenda all the way down to entry-level engineer
  ° Identify ideas and encourage other team members to generate/identify ideas
  ° Increase networking between leadership and engineering level employees
**Collaboration:** Enable employee collaboration within the GIC, with employees in other GIC locations of the same company, business units and client facing teams

- Create a digital platform where employees can share and build on their ideas. Platform should have an informal feel so that employees do not hesitate in sharing
- Host competitions and networking events to increase interactions
- Offer role rotations to different teams/BUs/GICs

**Evaluation Metrics:** Employee evaluation, for each level, should include appropriate metrics that encourages innovation. For example:

- Number of new ideas generated (for engineers)
- Number of ideas converted to prototypes (for engineers and managers)
- Number of prototypes converted to products (for managers and leadership)
- Impact of new products on top-line (for leadership)

**Leadership:** To enable top-down innovation culture, leadership's role is the most critical:

- Frequent connects b/w Leadership and Engineers to mine ideas and inspire them
- Enforce evaluation metrics that promote idea generation, without penalising for failure
- Leadership to be held accountable for firm-wide innovation KPIs, measured periodically

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**Cultural Transformation**

Innovation metrics, co-located facilities and innovation centres have helped Airbus inculcate a culture of innovation

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**Change Agents**

- Airbus has separate members in the team called Change Agents, which focus on innovative activities
- Selected from the top performers in the team. 20% of time and metrics/goals are aligned to innovation activities
- The job profile includes filtering ideas from the team, training the team and holding idea sharing sessions.

**BizLabs**

- Aims to accelerate the pace of commercialisation of innovative ideas
- Ideas can be internally generated or externally sourced
- Typically a 10-20 member team, which works exclusively on screening innovative ideas

**Innovation Centres**

- Co-located with the engineering centre for engineers to collaborate and work with the researchers
- Focus on building next-generation products and technologies like big data analytics, high performance and distributed computing
- Consists of experts and specialists, who decide the focus areas and location for each domain of work

**Co-located Facilities**

- All skills are co-located giving engineers a chance to work across domains and technologies
- Co-location enables engineers to work on problems end-to-end
- Provides an opportunity for engineers to specialise and develop exclusive skills such as Systems and Flight Warning domains
Open Innovation

Open innovation has become a buzzword and almost all GICs are embracing this concept in some way or the other. Parent organisations have many open innovation programs at a global level including programs for India, such as incubation centers and university tie-ups. But these initiatives are typically governed by the parent organisations with limited or no involvement of the GIC.

GICs need to adopt a hands-on approach by engrossing themselves in the startup/academic community. They need to proactively identify opportunities where they can add value to corporate's prevailing open innovation initiatives in India. E.g., have a dedicated team which will drive the open innovation agenda for the GIC. These initial steps would eventually lead to a much larger role of Indian GICs in the overall open innovation agenda of the organisation.

Open Innovation Case Study: Target India

The Target Accelerator Program (TAP) is considered to be one of the core facilitators driving innovation and growth at Target. The program is designed to help early stage startups develop concepts that could improve Target’s business and the broader retail period.

- A four member team runs the accelerator and interacts with startups and is currently running the 4th batch.

<table>
<thead>
<tr>
<th>Application Process</th>
<th>Incubation</th>
<th>Growth</th>
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<tbody>
<tr>
<td>Customary screening round followed by face-to-face pitching and competitive evaluation</td>
<td>Five selected team works in Target facilities for four months to develop on the idea</td>
<td>After the four month period, the startups pitch to Target and other investors for funding</td>
</tr>
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What is in it for

<table>
<thead>
<tr>
<th>Target</th>
<th>Startups</th>
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<tbody>
<tr>
<td>The program focuses on startups in five key areas of Target:</td>
<td>Startups get co-location space at target India Bangalore office with infrastructure such as</td>
</tr>
<tr>
<td>- Health and Wellness</td>
<td>- High Speed Internet</td>
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<td>- Internet of Things</td>
<td>- Business Hour IT Support</td>
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<tr>
<td>- Retail Technologies</td>
<td>- Cafeteria and Transportation Services</td>
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<tr>
<td>- Artificial Intelligence</td>
<td>Startups get mentorship from</td>
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<tr>
<td>- Augmented Reality / Virtual Reality</td>
<td>- Target Leaders</td>
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<td></td>
<td>- Top Entrepreneurs</td>
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<td>- Investors</td>
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<tr>
<td></td>
<td>- Academicians</td>
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<tr>
<td></td>
<td>- Global Experts in Technology and Design</td>
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</table>
Talent Strategy

Talent is perhaps the most important pillar for innovation intent to be realised. GICs of traditional engineering companies typically have a process and efficiency driven mindset. This mindset is also reflected in employee hiring and trainings, e.g. most engineering GICs hire people who can deliver a defined set of tasks in an efficient manner and employees undergo process-oriented certifications such as CMMI. In contrast, if we look at new-age technology companies such as Amazon and eBay, they test new hires on their problem solving skills, hire techies with MBAs from top B-schools and even successful entrepreneurs and offer differentiated salary and career path to "innovators".

ER&D GICs need to adopt some of these talent strategies to support their innovation agenda. The process of hiring, training and rewarding needs to align with innovation agenda.

Talent Strategy Case Study: Google India

<table>
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<tr>
<th>Focus on hiring problem solvers, not just coders</th>
<th>Focus on quality of work</th>
</tr>
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<tbody>
<tr>
<td>• Focus on recruiting the best engineers and developers who are problem solvers, not only coders and programmers</td>
<td>• Quality of works is at par with HQ</td>
</tr>
<tr>
<td>• Fresh hired are usually the top of the class from tier 1 institutes like IITs, NITs, BITS, IIITs. Candidates who have outperformed in several coding competitions from these institutes are also considered</td>
<td>• Employees are motivated to think &quot;really big (10X thinking)&quot; and solve for all users in the world not just locally</td>
</tr>
<tr>
<td>• Lateral hires from similar technology/e-commerce companies.</td>
<td>• High performers at GIC have access to global roles</td>
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<tr>
<td></td>
<td>• 20% time is dedicated for employees to take risk and do something innovative</td>
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<td></td>
<td>• Impact is measured on various metrics like user growth, adoption, etc.</td>
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<td></td>
<td>• End-to-end ownership of products</td>
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<tr>
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<td>• Key innovation and product ideas from India team</td>
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</table>
Local Market and Reverse Innovation

Traditionally, organisations have used two approaches to sell products in India:

- Localise products developed abroad for the Indian market
- Develop products from scratch in India for the domestic market

While the current market size may be small, India is poised for double digit growth in the next decade across most industries such as automotive, aerospace, consumer electronics etc. Several successful organisations, like GE, have already started manufacturing products for the Indian markets and look for ways to export these products globally.

Examples of GE's reverse innovation from India:

- GE Healthcare's Lullaby baby warmers have grown popular with doctors in Europe's modern maternity wards. The machines, which help new-borns adjust to room temperature, have been developed to solve an urgent need half the world away, in India.

- GE's Mac 400 is an ultra-portable electrocardiogram (ECG) machine. The device was fully conceptualised, designed, sourced and manufactured in India according to the requirements of local customers.

We recommend GICs to partner with India business and focus on innovating for local market and leverage it as a launch pad to gain significance on a global scale. It is easier for engineers to devise solutions for local market as they have a better understanding of customer needs and can get direct exposure to customers via local business unit.

Innovation Charter

It is imperative that employees are given management support to develop innovative ideas. There needs to be a clear idea-to-product lifecycle which will provide clarity on the innovation process in the organisation. The most innovative GICs, such as that of Bosch India, have a clear ideation to development process, where the ideas are incubated and funded.
Key Strategic Actions for the Government

For the government initiatives of Make in India and Digital India to be successful, there is a need to inculcate innovation culture in India. GICs can take a lead in this by focusing their research towards solving local problems. To enable this, we need to make innovation a national agenda supported with the right investment, policies and metrics.

Some of the key recommendations for the government in this innovation journey are:

- **Government as a buyer**
  - Government is a significant technology spender owing to its various initiatives such as Digital India, Smart Cities and e-Governance. They should prefer locally developed products to promote local innovation, provided the quality standards are met.

- **Industry collaboration**
  - Provide grants to companies/universities for research on specific areas of interest to government, such as cost-effective healthcare solutions for bottom-of-the-pyramid.
  - Give private sector access to government research facilities, especially in government controlled industries such as Defence and Aerospace.
  - Help accreditation facilities to ease certification process, e.g. in Aerospace, establish an FAA equivalent body in India.

- **Tax**
  - Include more industries under Income Tax Provision 35 (2AB) to enhance deductions on research expenses incurred by ER&D GICs. Currently, this provision is available till 2017, government should extend it to encourage more R&D investments.
  - Taxation laws should promote MNCs to develop products in India, e.g. ease transfer pricing norms.
  - Ease import regulations / clearance process for import of component/prototypes required by GICs. For example, extend re-export time period (currently 9 months); increase upper cap (currently INR 10,000) to include more sophisticated equipment; and bring more clarity around the duty-free status for import of prototypes to ensure smooth on-the-ground implementation.
  - R&D Cess should be exempted and import of technology by R&D centres should be considered as “deemed exports” by the government.
  - To boost the overall manufacturing sector, the benefit of weighted deduction should also be extended to expenditure incurred on “building and infrastructure” exclusively used for R&D.
Industry bodies, such as NASSCOM, have a key role to play in projecting India as the preferred destination for ER&D services. By leveraging on their expertise and global outreach, they can put Indian GICs on the global map.

Some key recommendations for industry bodies include:

- Collaborate with the industry and universities by developing specific curriculum to cater to the ER&D industry. They can also help develop industry recognised certifications to establish occupation standards in India.
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