The discipline of innovation

Making sure your innovation center actually makes your organization more innovative

By Capgemini Digital Transformation Institute
Do innovation centers really make organizations innovative?
Introduction

Innovation centers have entered the mainstream. According to our research, 87% of companies have a lab or space dedicated to innovation. Since our last research in October 2016, we have tracked a 27% growth in innovation centers.

However, while this enthusiasm for innovation centers is encouraging, it is results that count. It is important to understand the value delivered and establish whether innovation centers are critical strategic priorities, or whether some are more of a PR exercise designed to showcase the company’s commitment to “innovation.”

In this latest edition of our research series on innovation centers, we look to answer a number of questions:

1. Are organizations becoming more innovative as a result of their investments in innovation centers?
2. What is holding organizations back from achieving innovation maturity and turning investment into results?
3. How can organizations maximize the value from their innovation efforts and investment?

Also, at the end of this report, we provide an overview of the locations and focus of innovation centers around the world in our Capgemini 2017 Innovation Center League Table. Some of the key highlights are in the infographic overleaf.

---

a We surveyed 1,700 respondents from 340 organizations, each with billion dollar annual revenue in 2016, from March to April 2017 across 8 countries and 5 sectors. 49% of companies had annual revenues over 10 billion dollars.
Capgemini 2017 Innovation Center Research

Asia: the new innovation center powerhouse

Asia claims 29% of total innovation centers opened in 2017, compared to Europe’s 25%.

Top 4 global Innovation center destinations*

1. Silicon Valley - 75
2. Singapore - 27
3. London - 22
4. Bangalore - 17

*The numbers represent total count of innovation centers till October 2017

Innovation center picture shifts in the US

While still the top destination, Silicon Valley sees its share of US innovation centers decline from 58% in mid-2015 to 38% in 2017.

Atlanta, Boston and New York added 11 centers between them over the past 12 months. Atlanta now the second highest number of innovation centers in the US after Silicon Valley.

Electronics and IT lead the charge, with organizations focused on AI and data analytics

Top 3 sectors for new innovation centers*

1. Electronics and IT - 26
2. Automotive - 21
3. Financial services - 20

*The numbers represent newly added centers between November 2016 to October 2017

Top 2 areas of tech focus*

1. Artificial Intelligence - 44%
2. Big data/analytics - 39%

*Percentages represent newly added centers between November 2016 to October 2017
1. Are organizations becoming more innovative as a result of their investments in innovation centers?

Innovation centers have been a staple on the menu of organizations across industries for the past few years. In fact, in our latest research, we found that the number of innovation centers grew from 456 to 580 between October 2016 and October 2017 (see Figure 1). Worldwide, the US is today’s dominant host country. You can find more detail on the location of innovation centers in our Capgemini 2017 Innovation Center League Table at the end of this report.

Figure 1. Growth in innovation centers, 2015-2017

Source: Capgemini Digital Transformation Institute analysis.
But are organizations becoming more innovative as a result of their investments in innovation centers? Our research shows that 87% of organizations have a lab or space dedicated to innovation, but there are strong signs that innovation is still a challenge:

- Only 17% (see Figure 2) of companies say that innovation is carried out across the organization, i.e. beyond the innovation center.
- 51% of the executives we surveyed felt that their organizations are unable to keep pace with market changes.
- Our research found that only one out 10 managers and junior employees felt that innovation is supported at the executive level and directly supports growth strategy.

**Figure 2. Most organizations have an innovation center but few carry out innovation beyond their innovation centers**

<table>
<thead>
<tr>
<th>Organizations having dedicated physical space for innovation</th>
<th>Organizations carrying out innovation beyond innovation centers</th>
</tr>
</thead>
<tbody>
<tr>
<td>87%</td>
<td>17%</td>
</tr>
</tbody>
</table>

Source: Capgemini digital innovation survey, analysis based on average scores of 340 organizations (N = 1,700 respondents).

Why is the enthusiasm for setting up innovation centers not translating into more innovative organizations? To probe this question more deeply, we surveyed 1,700 executives—including leaders, middle-management, and junior executives—from 340 organizations in eight countries. Our aim was to analyze organizations’ innovation maturity and to understand to what extent they are achieving their innovation goals. To do this, we assessed organizations against five innovation dimensions, from ecosystem (the extent to which organizations work with vendors and other partners to enable innovation) to process (the extent to which processes are laid out to ensure successful commercialization of innovative ideas).

This analysis showed us where organizations are in terms of their innovation maturity, which we define as:

1. **“Beginning,”** where organizations have a few isolated innovation projects driven by individuals, with no enterprise focal point.
2. **“Building,”** where a set of initial innovation projects is run largely at the departmental level and without central management.
3. **“Established,”** where the organization has achieved some success, with several projects being taken from idea to commercialization or operational impact.
4. **“Optimized,”** where the organization shows a consistent track record of taking ideas from inception through to significant commercial or operational impact.

As Figure 3 illustrates, we found that:

- 76% of respondents classed their organization as level 2, or “Building” and 21% as level 3, or “Established.” No one classified their organization at peak maturity (level 4, “Optimized”).
- If we separate out the leadership level respondents from the 1,700 surveyed, we did find that they have a more optimistic view. Close to half (47%) class their organization as level 3, “Established,” and we find that 5% even say they are level 4, “Optimized.”
- Overall, however, there is little sense that most senior executives and employees feel their organizations have a consistent track record of taking innovative ideas through to impact.

b,c We surveyed 1,700 respondents from 340 organizations, each with billion dollar annual revenue in 2016, from March to April 2017 across 8 countries and 5 sectors. 49% of companies had annual revenues over 10 billion dollars.
Five innovation dimensions

**Ecosystem**  
Extent to which organizations work with vendors and other partners to enable innovation

**Environment**  
Extent to which innovation is carried out across the organization or limited to certain units

**Governance**  
Extent to which leadership supports innovation and ensures its alignment to the organization’s growth strategy

**Culture**  
Extent to which employees are encouraged to explore and deploy innovative ideas

**Process**  
Extent to which processes are laid out to ensure successful commercialization of innovative ideas

Figure 3: Innovation maturity by all respondents

% of organizations on the innovation maturity curve  
(All employees’ view)

- 1 – Beginning 3%
- 2 – Building 76%
- 3 – Established 21%
- 4 – Optimized 0%

% of organizations on the innovation maturity curve  
(Leadership view)

- 1 – Beginning 1%
- 2 – Building 47%
- 3 – Established 47%
- 4 – Optimized 5%

Source: Capgemini digital innovation survey, analysis based on average scores of 340 organizations (N = 1,700).
Innovation Maturity
Overall innovation maturity score: Leadership 2.7, All Employees 2.4

Score 1: Beginning
Potentially some isolated innovation projects driven by individuals though no focal point for it. May be looking to increase focus on innovation.

Score 2: Building
Some initial innovation projects have been run though largely at the department level, so are not centrally managed.

Score 3: Established
Some success with several projects being taken from idea through to commercialization or operational impact.

Score 4: Optimized
Consistent track record of taking ideas from inception through to significant commercial or operational impact.

Source: Capgemini Digital Transformation Institute Analysis.

Ecosystem and culture are the weakest-performing areas when it comes to innovation maturity.
2. What is holding organizations back from achieving innovation maturity and turning investment into results?

To understand why so few organizations have a mature innovation capability, we took a closer look at the innovation enablers. We find challenges in all areas, with Ecosystem and Culture the weakest-performing areas and only two areas reaching the “Established” level.

- **Ecosystem (average score—2.2):** It is clear that organizations are not doing enough when it comes to engaging with the wider partner and vendor community. While the importance of collaboration is understood, organizations tend to struggle with how it should be done. Four out of 10 respondents said that their processes and technology are not aligned to enable interactions with partners. Another factor preventing organizations from collaborating externally concerns sharing data with third parties and losing their competitive edge.

Figure 5. Spread of organizations across ecosystem maturity scores

**Ecosystem:** Extent to which organizations work with vendors and other partners to enable innovation

Source: Capgemini digital innovation survey, analysis based on average scores of 340 organizations (N = 340 respondents).
• **Culture (average score—2.3):** Much of our digital research has shown that culture is the number one hurdle to successful digital transformation. And it remains true when it comes to innovation, Deborah Ancona, Director of the MIT Leadership Center at the MIT Sloan School of Management, said: “Culture is one of the slowest things to change. It is deeply ingrained and often tacit.” Our maturity analysis shows that many organizations do not have a culture where employees are empowered to experiment, test and learn, and deploy their ideas at pace. Cultural maturity is the most difficult to attain as it requires a mindset change. For example, freedom to fail needs to be acceptable if an organization wants to encourage innovation. Innovation units have a big role to play here. They can partner with business teams on some of the risky innovations that the company would like to pursue. Over a period of time, this will ensure a higher level of acceptance to risk, change, and innovation.

**Figure 6. Spread of organizations across cultural maturity scores**

**Culture:** Extent to which employees are encouraged to explore and deploy innovative ideas

<table>
<thead>
<tr>
<th>Score</th>
<th>Organization Distribution</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>5% Beginning</td>
</tr>
<tr>
<td>2</td>
<td>77% Building</td>
</tr>
<tr>
<td>3</td>
<td>17% Established</td>
</tr>
<tr>
<td>4</td>
<td>1% Optimized</td>
</tr>
</tbody>
</table>

Source: Capgemini Digital innovation survey, analysis based on average scores of 340 organizations (N = 1,700 respondents).

• **Governance (average score—2.5):** This is one of the areas where organizations are lagging. Without the support of senior leadership—and clear alignment with the company’s strategic objectives—innovation units’ efforts risk being sidelined when competing with the company’s other strategic priorities. The success of the Apple iPad is partly a result of the fact that the iPad was considered a core business opportunity and not simply a “research project.”

**Figure 7. Spread of organizations across governance maturity scores**

**Governance:** Extent to which leadership supports innovation and ensures its alignment to the organization’s growth strategy

<table>
<thead>
<tr>
<th>Score</th>
<th>Organization Distribution</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>13% Beginning</td>
</tr>
<tr>
<td>2</td>
<td>53% Building</td>
</tr>
<tr>
<td>3</td>
<td>33% Established</td>
</tr>
<tr>
<td>4</td>
<td>1% Optimized</td>
</tr>
</tbody>
</table>

Source: Capgemini digital innovation survey, analysis based on average scores of 340 organizations (N = 1,360 respondents).
• **Process (average score—3.0):** Many organizations lack established processes for managing an idea through to commercialization. Deeper analysis of the 47% of organizations that fall into the “optimized” level of innovation shows that 34% are headquartered in countries that already have robust innovation cultures: the US and UK. Innovation process maturity is critical. It decides whether an innovation unit makes a meaningful contribution to an organization or if it is, in reality, just a showcase.

![Figure 8. Spread of organizations across process maturity scores](image)

**Process:** Extent to which processes are laid out to ensure successful commercialization of innovative ideas.

![Beginning (Score 1): 2%](image)

![Building (Score 2): 48%](image)

![Established (Score 3): 3%](image)

![Optimized (Score 4): 47%](image)

Source: Capgemini digital innovation survey, analysis based on average scores of 340 organizations (N = 340 respondents).

• **Environment (average score—3.1):** By opening standalone innovation units, organizations appear to believe that their innovation efforts are done. What they fail to realize is that they have neglected to integrate these units with the rest of the firm. Businesses tend to keep innovation units at arm’s length. In some organizations, teams will be opposed to integrating ideas and solutions in their units, sometimes even considering the innovation units as a threat. John Rethans, global digital transformation strategist at Apigee, a provider of API platforms, in a recent discussion on why innovation centers fail, said: “I’ve seen a number of places where the innovation center is literally a glass-walled aquarium on a busy street in which 30 or so hipsters are on display, working on MacBooks at standing desks. Meanwhile, the rest of the company toils away in the surrounding towers, working in cubicles with five-pound, 10-year-old laptops. This type of center devolves into innovation as spectacle instead of innovation as strategy.”

![Figure 9. Spread of organizations across environment maturity scores](image)

**Environment:** Extent to which innovation is carried out across the organization or limited to certain units

![Beginning (Score 1): 2%](image)

![Building (Score 2): 19%](image)

![Established (Score 3): 51%](image)

![Optimized (Score 4): 28%](image)

Source: Capgemini digital innovation survey, analysis based on average scores of 340 organizations (N = 340 respondents).
How can organizations maximize value from innovation efforts?

How can organizations address these challenges? To understand best practice, we compared the stronger performers (“Established” and “Optimized”) against the laggards (“Beginning” and “Building”). The practices and success factors that emerged include:

- Collaborating internally and externally
- Hiring leaders who understand innovation
- Adopting a digital culture that is aligned with the overall corporate strategy
- Focusing on speeding up the decision-making and commercialization process
- Ensuring flexibility and agility, with minimal bureaucratic hurdles.

Collaborate internally and externally. Innovative organizations are more likely than their less mature counterparts to have a culture of collaboration (see Figure 10). This includes internal collaboration, where teams draw on each other’s skills to drive strategic projects, as well as external collaboration with start-ups, academia, and other industry partners. Renault recently launched an Innovation Center to allow Renault’s internal teams to work with startups and external partners to explore the future of mobility. It plans to give its partners “access to its hardware and software systems to facilitate cooperative work on the vehicles of the future, developing breakthrough and futuristic technologies, and fostering a wealth of new business opportunities in the process.”

Figure 10. Focus on collaboration

As a percentage of organizations that agree

<table>
<thead>
<tr>
<th>Has a culture of promoting collaboration and exchange of ideas across different departments and functions</th>
</tr>
</thead>
<tbody>
<tr>
<td>61% Organizations with average innovation maturity score at or above 3</td>
</tr>
</tbody>
</table>

Source: Capgemini digital innovation survey, analysis based on average scores of 340 organizations (N = 1,700 respondents).
Hire leaders who understand innovation. As Figure 11 shows, mature organizations are more likely to have the right leaders at the helm—leaders who act as role models and help ensure that innovation is not just the remit of the innovation unit. Such leaders ensure that innovation centers have heavyweight leadership. Dentsu Aegis Network, for example, appointed a Dentsu Aegis veteran—Audrey Kuah—to lead their Global Data Innovation Center. Audrey Kuah was previously CEO for Aegis Media Singapore, and most recently Chief Client Officer for Dentsu Aegis Network Southeast Asia. With their leadership team setting the tone, employees are encouraged to share ideas with their leaders and make their voices and ideas heard. This creates a tolerance for experimentation, protecting and encouraging an innovation culture. opportunities in the process.”

Figure 11. Hiring the right talent and encouraging employee participation

<table>
<thead>
<tr>
<th>As a percentage of organizations that agree</th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Leadership acts as role models in displaying openness to change and adopting new behaviours</td>
<td>42%</td>
<td>24%</td>
<td></td>
</tr>
<tr>
<td>Discussions around novel business initiatives that leverage newer technologies are open for all employees</td>
<td>48%</td>
<td>35%</td>
<td></td>
</tr>
<tr>
<td>Every employee is encouraged to share thoughts with senior leadership and there are dedicated avenues for doing so</td>
<td>35%</td>
<td>21%</td>
<td></td>
</tr>
</tbody>
</table>

Right leadership hiring | Employee participation in innovation/ideation

---

42% 24% 48% 35% 35% 21%

Organizations with average innovation maturity score at or above 3

Organizations with average innovation maturity score below 3

Source: Capgemini digital innovation survey, analysis based on average scores of 340 organizations (N = 1,700 respondents).

Mature organizations are more likely to have the right leaders at the helm—leaders who act as role models and help ensure that innovation is not just the remit of the innovation unit.
Ensure flexibility and agility, with minimal bureaucratic hurdles. Mature organizations are agile and have flexible processes that allow them to adapt their structure dynamically to market changes (see Figure 12). They promote idea generation and are less likely to face hurdles such as bureaucracy. Mirvac, for example, an industrial and residential property developer, runs an innovation program called “Hatch” to support innovation efforts. They have hundreds of “Hatch Helpers” in the business who introduce innovative approaches into ongoing business projects, either by running ideation sessions or by providing internal consulting support. Rewarding employees for good ideas and involving them in implementation further stimulates idea generation.

Figure 12. Flexible processes and open culture

As a percentage of organizations that agree

- Processes are flexible and adapted as required: 48% agree, 23% disagree.
- Company adapts its structure dynamically to the changes in the market: 45% agree, 23% disagree.

Flexible processes

- Employees are engaged in the operational implementation of new and innovative ideas and feel responsible about it: 42% agree, 24% disagree.
- Employees do not have to deal with bureaucracy to submit ideas: 35% agree, 23% disagree.

Smooth idea generation process

Source: Capgemini digital innovation survey, analysis based on average scores of 340 organizations (N = 1,700 respondents).
Adopt a digital culture aligned with the overall corporate strategy. As Figure 13 shows, mature organizations have pivoted their organization culture towards digital and prioritize digital solutions (a “digital-first” mindset). According to Jennifer Waldo, Chief HR Officer at GE Digital: “For most well-established organizations, embracing digital requires transformational versus incremental change […] Culture evolution is an ongoing process and it is therefore difficult to define the perfect starting point. If GE had waited to find the right beginning or the required start, we would not have been able to achieve what we have today. You have to recognize that this is a journey—you have to start and pivot along the way.” To make this possible, organizations need to align their employee roles, KPIs, and compensation structure to their overall digital transformation objectives.

Figure 13. Digital focus

As a percentage of organizations that agree

<table>
<thead>
<tr>
<th>People naturally think of digital technologies when considering ways to improve</th>
<th>Aligning compensation structure to digital transformation objectives</th>
<th>Have succeeded in evolving the organization culture towards a digital culture</th>
</tr>
</thead>
<tbody>
<tr>
<td>58%</td>
<td>48%</td>
<td>45%</td>
</tr>
<tr>
<td>30%</td>
<td>28%</td>
<td>29%</td>
</tr>
</tbody>
</table>

Source: Capgemini digital innovation survey, analysis based on average scores of 340 organizations (N = 1,700 respondents).

Firms with higher innovation maturity are 25% more likely to have flexible processes.
Focus on speeding up the decision-making and commercialization process. It is important to have an open culture where professionals have the freedom to experiment and explore. However, measurement and metrics are also critical to keep everyone focused on the end objective and provide a common language to communicate across the organization. To drive measurable success, innovation units need a clear plan in place to commercialize their innovations. Mature organizations ensure employees are empowered to take independent decisions and focus on quickly converting ideas to prototypes, ensuring employee buy-in to the innovation programs (see Figure 14). Northwell Health believes that “it isn’t enough to talk about innovation, but areas must be created where those ideas can be implemented.” They have therefore created a department called Northwell Ventures, which is a focal point for people to submit their ideas. The venture oversees collection of new ideas as well as their vetting, testing, and piloting. According to Northwell Health President and CEO Michael Dowling: “Paralysis by analysis can kill a great idea. It takes strong leaders and a strong culture to take a chance on a new idea, as well as the flexibility to course correct if something doesn’t go right.”

Figure 14. Focus on commercialization

As a percentage of organizations that agree

<table>
<thead>
<tr>
<th>Encourages bold, rapid and independent decision making</th>
<th>Selects and implements promising ideas quickly as prototypes</th>
</tr>
</thead>
<tbody>
<tr>
<td>45%</td>
<td>42%</td>
</tr>
<tr>
<td>25%</td>
<td>26%</td>
</tr>
</tbody>
</table>

Organizations with average innovation maturity score at or above 3 | Organizations with average innovation maturity score below 3

Source: Capgemini digital innovation survey, analysis based on average scores of 340 organizations (N = 1,700 respondents).
Conclusion

Organizations across the world continue to invest in innovation centers and countries continue to strive for recognition as innovation destinations. Newer hubs such as Singapore and India will continue to attract investment, given their governments’ push towards a digital economy and abundance of digital talent.

However, while businesses and countries are investing and growing innovation centers, that does not necessarily mean companies are becoming more innovative. Becoming an innovative organization takes a lot more than opening an innovation center in an innovation hotspot. It requires a disciplined approach on a number of fronts. Innovative organizations:

- Access a wider ecosystem, where ideas are co-developed in conjunction with both external and internal partners
- Promote and encourage innovation across business units and functional departments and do not limit it to innovation units
- Build a digital-first culture with support and role modeling from senior leadership
- Create a culture that encourages idea generation from all levels of the organization
- Establish processes to manage ideas through to commercialization.

Organizations that wish to be ahead of the curve need to equip themselves with the relevant capabilities, talent, and resources. Pushing up the average innovation maturity score requires a concerted effort to tackle the weakest links: Ecosystem and Culture. Most importantly, it will take strong, committed, and determined leadership to really shift the innovation dial.
Capgemini 2017 Innovation Center League Table

India Continues its Strong Showing, while Singapore Zooms Ahead

Asian technology hubs continued their strong performance as an attractive innovation center destination for large organizations. Asia continues to be a big market for global players, who are keen to establish themselves in this region and localize their offerings to cater to the unique and evolving needs of Asian consumers. Another key reason for Asia’s prominence is the presence of a very strong digital talent pool. India, for example, as our recent research with LinkedIn shows, is the largest supply worldwide of digital talent.9

Figure 15. Innovation centers across the globe

<table>
<thead>
<tr>
<th>Region</th>
<th>Feb-16</th>
<th>Oct-16</th>
<th>Oct-17</th>
</tr>
</thead>
<tbody>
<tr>
<td>US</td>
<td>13%</td>
<td>13%</td>
<td>12%</td>
</tr>
<tr>
<td>Asia</td>
<td>29%</td>
<td>26%</td>
<td>25%</td>
</tr>
<tr>
<td>Europe</td>
<td>27%</td>
<td>29%</td>
<td>29%</td>
</tr>
<tr>
<td>Rest of the World</td>
<td>31%</td>
<td>32%</td>
<td>34%</td>
</tr>
</tbody>
</table>

Source: Capgemini Digital Transformation Institute analysis.

Figure 16. Newly opened innovation centers (Nov. 2016–Oct. 2017)

<table>
<thead>
<tr>
<th>Country</th>
<th>Innovation Centers</th>
</tr>
</thead>
<tbody>
<tr>
<td>US</td>
<td>47</td>
</tr>
<tr>
<td>Singapore</td>
<td>13</td>
</tr>
<tr>
<td>Germany</td>
<td>10</td>
</tr>
<tr>
<td>India</td>
<td>9</td>
</tr>
<tr>
<td>UK</td>
<td>7</td>
</tr>
<tr>
<td>Israel</td>
<td>4</td>
</tr>
<tr>
<td>France</td>
<td>4</td>
</tr>
<tr>
<td>China</td>
<td>4</td>
</tr>
<tr>
<td>Canada</td>
<td>4</td>
</tr>
<tr>
<td>Saudi Arabia</td>
<td>3</td>
</tr>
</tbody>
</table>

Source: Capgemini Digital Transformation Institute analysis.
In August 2017, PayPal announced plans to launch two innovation centers in India, one each in Bangalore and Chennai on the lines of the ones they have in US and Singapore. Their General Manager for Technology and Head of Engineering, Guru Bhat attributed this to India’s innovation potential: “With over 145,000 registered patents between 2013 and 2016 to its credit, India’s innovation potential is enormous and will certainly break benchmarks with the right kind of encouragement.”

Similarly, energy giant Shell recently launched a Technology Center in Bangalore as they consider India to be “a heartland-of-talent, proficient at generating best-in-class ideas, insights and business models.” They were also encouraged by Indian government’s focus on innovation and their keenness to build “world-class technological skills in India for India.”

Figure 17. Ranking of innovation centers across the globe

<table>
<thead>
<tr>
<th>Top 10 locations</th>
<th>In June 2015</th>
<th>In February 2016</th>
<th>In October 2016</th>
<th>In October 2017</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Silicon Valley</td>
<td>Silicon Valley</td>
<td>Silicon Valley</td>
<td>Silicon Valley</td>
</tr>
<tr>
<td>2</td>
<td>London</td>
<td>London</td>
<td>London</td>
<td>Singapore</td>
</tr>
<tr>
<td>3</td>
<td>Paris</td>
<td>Paris</td>
<td>Singapore</td>
<td>London</td>
</tr>
<tr>
<td>4</td>
<td>Singapore</td>
<td>Singapore</td>
<td>Paris</td>
<td>Bangalore</td>
</tr>
<tr>
<td>5</td>
<td>Tokyo</td>
<td>Bangalore</td>
<td>Bangalore</td>
<td>Paris</td>
</tr>
<tr>
<td>6</td>
<td>Shanghai</td>
<td>Tokyo</td>
<td>Atlanta</td>
<td>Atlanta</td>
</tr>
<tr>
<td>7</td>
<td>Berlin</td>
<td>Shanghai</td>
<td>Shanghai</td>
<td>Berlin</td>
</tr>
<tr>
<td>8</td>
<td>Munich</td>
<td>Berlin</td>
<td>Tokyo</td>
<td>Tel Aviv</td>
</tr>
<tr>
<td>9</td>
<td>Tel Aviv</td>
<td>Munich</td>
<td>Tel Aviv</td>
<td>Boston</td>
</tr>
<tr>
<td>10</td>
<td>Chicago</td>
<td>Boston</td>
<td>Toronto</td>
<td>Shanghai</td>
</tr>
</tbody>
</table>

Source: Capgemini Digital Transformation Institute analysis.
In our latest findings, Singapore took the second position away from London and attracted the maximum number of innovation centers in 2017 (see Figure 18). This is primarily due to Singapore’s aggressive push to become a digital economy and the Asian hub for innovation. For example, in 2016, the government announced $13.6 billion for research and development over the next five years, and in 2017, it committed a further US $100 million for activities in the field of artificial intelligence.

Schaeffler, a global automotive and industrial supplier, launched a center in Singapore in 2017 to develop smart mobility devices. Andreas Schick, the Asia Pacific CEO, said: “Our long-term vision is to develop Singapore as a hub for research and innovation for urban mobility. The proactive efforts from the Government of Singapore make it a highly conducive place for developing technologies for future megacities and Schaeffler is keen to tap into these opportunities, working together with the big and highly educated talent pool.”

On the launch of its Global Data Innovation Center in Singapore, Nick Waters, CEO, Dentsu Aegis Network Asia Pacific, a global media group, said: “We now have access to the world’s best talent, world-class technology and business infrastructure, and be situated close to the world’s most dynamic markets.”

Source: Capgemini Digital Transformation Institute analysis.

In our latest findings, Singapore took the second position away from London and attracted the maximum number of innovation centers in 2017 (see Figure 18). This is primarily due to Singapore’s aggressive push to become a digital economy and the Asian hub for innovation. For example, in 2016, the government announced $13.6 billion for research and development over the next five years, and in 2017, it committed a further US $100 million for activities in the field of artificial intelligence.

Schaeffler, a global automotive and industrial supplier, launched a center in Singapore in 2017 to develop smart mobility devices. Andreas Schick, the Asia Pacific CEO, said: “Our long-term vision is to develop Singapore as a hub for research and innovation for urban mobility. The proactive efforts from the Government of Singapore make it a highly conducive place for developing technologies for future megacities and Schaeffler is keen to tap into these opportunities, working together with the big and highly educated talent pool.”

On the launch of its Global Data Innovation Center in Singapore, Nick Waters, CEO, Dentsu Aegis Network Asia Pacific, a global media group, said: “We now have access to the world’s best talent, world-class technology and business infrastructure, and be situated close to the world’s most dynamic markets.”
Silicon Valley—No Longer the Default Choice

The US’s dominance of innovation centers continues – but Silicon Valley is not the default choice anymore

Silicon Valley continues to see a decline as the de facto location choice. In mid-2015, its share in the US stood at 58%, but this now stands at 38% (see Figure 19). Globally, it now accounts for only 13% of innovation centers compared to 18% in 2015. Commentators point to a number of factors, such as the high cost of living – the median monthly rent in San Francisco is more than double the nationwide average. The tough competition for hiring from the local talent pool is another factor which coupled with the high living expenditure, makes organizations shell out exorbitant amount of money even to hire entry level engineers. Mark Hamrick, Washington, D.C. bureau chief for Bankrate.com says: “The rise of the technology sector, in place for years now, has been the modern iteration of the California gold rush. But the combination of high costs and the region’s relatively tight job market is a double-edged challenge for technology sector employers.” After the creation of their first innovation center in the Silicon Valley, most organizations are now opening a network of centers in other regions. This also explains the decline in the Silicon Valley’s share of innovation centers.

Given these pressures on the Silicon Valley, we see innovation centers now spreading across the US, especially in the East Coast, where a pool of talent is available. Atlanta, Boston, and New York added 11 centers among them over the past 12 months. The presence of the Georgia Institute of Technology has played a key role in attracting organizations such as Siemens to Atlanta. With four centers established in the past 12 months, it attracted capital with a particular focus on financial tech, education tech and health tech startups.
Figure 20. Innovation centers in US

- Silicon Valley: 75
- Atlanta: 12
- Boston: 9
- Chicago: 7
- Austin: 7
- New York City: 6
- Detroit: 4
- Plano: 0
- Philadelphia: 0
- Carlsbad: 2
- Los Angeles: 2
- Dallas: 2
- Seattle: 2

Source: Capgemini Digital Transformation Institute analysis.
Electronics and IT are taking the lead, with Artificial Intelligence as a key focus area for innovation centers

Figure 21. Number of innovation centers per sector

![Figure 21](chart1.png)

Source: Capgemini Digital Transformation Institute analysis.

Figure 22. Innovation centers by area of technology focus

![Figure 22](chart2.png)

Source: Capgemini Digital Transformation Institute analysis.
Research Methodology

Innovation maturity survey:

We surveyed 1,700 respondents from 340 organizations, each with billion dollar annual revenue in 2016, from March to April 2017 across 8 countries and 5 sectors. 49% of companies had annual revenues over 10 billion dollars: April 2017:

- 20% were senior executives at Director level or higher, 40% were middle management, and 40% were employees in non-supervisory roles.
- It spanned five sectors: Automotive, Banking / Insurance, Consumer Products, Retail, and Telecommunications.
- We covered eight countries—the United States, United Kingdom, France, Germany, Italy, Sweden, the Netherlands and Spain.
Analysis of innovation centers’ locations and focus:

We conducted in-depth secondary research of all innovation center launches and announcements across the world between November 2016 and October 2017, across all major industry sectors.

Major sources include:

• Media reports and press releases
• Annual reports
• Executive interviews, conference speeches
• Web and social media updates such as blog posts.
Applied Innovation at Capgemini

**Applied Innovation.** It goes far beyond today’s practices and conventions which tend to put the innovation at the center or the primary objective of the enterprise’s response. Rather, **Applied Innovation addresses the target business outcomes, as well as the adoption and consumption of the innovation.** It’s our raison d’être.

Capgemini supports clients with their innovation capability through the Applied Innovation Exchange (AIE). The AIE is Capgemini’s global platform that leverages a framework for action, a network of global exchange locations, and a results-oriented engagement experience. Together with a broad community of designers, technologists, sector experts, business and technology partners, academics, research organizations and startups, Capgemini enables organizations to proactively plan for and respond to the various technology and business shifts.

**Applied Innovation Exchange Framework**

Many organizations are not designed to innovate effectively or fast. They lack the necessary processes, talent, risk tolerance and leadership alignment, as well as a culture that encourages, rewards and promotes innovation. In an innovation landscape that is increasingly leveraging emerging technologies, a rigorous, disciplined and open approach is required to rapidly and securely gain competitive advantage by hedging risks and compressing cycle times. The AIE’s tried-and-tested framework provides the necessary discipline and rigor to the applied innovation process.

**Applied Innovation Exchange Global Network**

The Applied Innovation Exchange Global Network provides an immersive and transformative environment, as well as the infrastructure to innovate at speed and scale. The AIE aligns over 30 global innovation environments providing new engagement and delivery models for clients, partners and people. This includes 11 full-service Exchanges around the world which helps companies through the end-to-end applied innovation process.

**Applied Innovation Ecosystem**

The AIE’s global curated ecosystem ranges from startups and academics to the largest technology providers to ensure an accelerated path to applied innovation. The AIE serves as a gateway between multi-national clients and the global ecosystem. We are continuously advancing our diverse, global ecosystem in order to expose companies to the latest thinking, technologies and experiences from a range of ecosystem partners.

**Find out more at www.capgemini.com/innovation**
End Notes

5. Mirvac company website.
6. Capgemini Digital Transformation Review #10
10. Times of India, PayPal’s new Innovation labs in Chennai and Bangalore to work on IoT, AI and robotics, August 2017.
15. The Economist, ”Tech firms shell out to hire and board talent”, Nov 2016.
Discover more about our recent research on digital transformation
About the Authors

Jerome Buvat
Global Head of Research and Head, Capgemini Digital Transformation Institute
jerome.buvat@capgemini.com
Jerome is head of Capgemini’s Digital Transformation Institute. He works closely with industry leaders and academics to help organizations understand the nature and impact of digital disruptions.

Ben Gilchriest
Director, Capgemini
ben.gilchriest@capgemini.com
Dr. Ben Gilchriest is a director and innovation lead for Capgemini’s global Digital Services practice. Ben is focused on helping businesses apply emerging technologies to enable new customer experiences and business models. He has founded and led multiple new ventures and startups in Europe, Australia, SE Asia and North America. He is based in Los Angeles.

Eric Turkington
Director, Fahrenheit 212 (an innovation consultancy team of the Capgemini Group)
eturkington@fahrenheit-212.com
Eric is responsible for driving the growth of Fahrenheit 212’s portfolio of clients and service offerings across a broad spectrum of industries and disciplines, pairing Fahrenheit’s innovation capabilities with companies seeking sustainable, profitable growth. Prior to joining Fahrenheit 212, Eric was a practice co-founder and engagement leader at Ruder Finn Inc., with a focus on corporate and product positioning, integrated communications and digital strategy. He has led award-winning global engagements centered around innovation for FORTUNE 500 companies across financial services, CPG, healthcare, and technology sectors. Eric studied Philosophy, Neuroscience, and Psychology for his BA at Washington University in St. Louis.

Subrahmanyam KVJ
Senior Manager, Digital Transformation Institute, Capgemini
subrahmanyam.kvj@capgemini.com
@Sub8u
Subrahmanyam is a senior manager at the Digital Transformation Institute. He loves exploring the impact of technology on business and consumer behavior across industries in a world being eaten by software.

Aritra Ghosh
Senior Consultant, Capgemini Digital Transformation Institute
aritra.ghosh@capgemini.com
Aritra is a senior consultant at Capgemini’s Digital Transformation Institute. He likes to follow how emerging digital technologies are commercialized and what disruptions across industries they bring in.

The authors would like to especially thank Lincy Therattil, Shahul Nath, and Apurva Chandna from Capgemini Digital Transformation Institute for their contribution to this report.
The authors would also like to thank Bob Schwartz, Jacques Mezhrahid, Jia MA, Liyan Tang, Bobby Ngai from Capgemini Group; Olivier Hervé and Oliver Vastag from Capgemini Consulting.

The Digital Transformation Institute
The Digital Transformation Institute is Capgemini’s in-house think-tank on all things digital. The Institute publishes research on the impact of digital technologies on large traditional businesses. The team draws on the worldwide network of Capgemini experts and works closely with academic and technology partners. The institute has dedicated research centers in the United Kingdom and India.
dti.in@capgemini.com
For more information, please contact:

**Global**
Lanny Cohen
lanny.cohen@capgemini.com

<table>
<thead>
<tr>
<th>Country</th>
<th>Name</th>
<th>Email</th>
</tr>
</thead>
<tbody>
<tr>
<td>USA – San Francisco</td>
<td>Joe Boggio</td>
<td><a href="mailto:joe.boggio@capgemini.com">joe.boggio@capgemini.com</a></td>
</tr>
<tr>
<td>USA – New York</td>
<td>Tony Fross</td>
<td><a href="mailto:tony.fross@capgemini.com">tony.fross@capgemini.com</a></td>
</tr>
<tr>
<td>Canada – Toronto</td>
<td>Alexis Zamkow</td>
<td><a href="mailto:alexis.zamkow@capgemini.com">alexis.zamkow@capgemini.com</a></td>
</tr>
<tr>
<td>France – Paris</td>
<td>Jean-Claude Guyard</td>
<td><a href="mailto:jean-claude.guyard@capgemini.com">jean-claude.guyard@capgemini.com</a></td>
</tr>
<tr>
<td>France – Lille</td>
<td>Simon Bachelet</td>
<td><a href="mailto:simon.bachelet@capgemini.com">simon.bachelet@capgemini.com</a></td>
</tr>
<tr>
<td>France – Toulouse</td>
<td>Vincent Denys</td>
<td><a href="mailto:vincent.denys@capgemini.com">vincent.denys@capgemini.com</a></td>
</tr>
<tr>
<td>United Kingdom – London</td>
<td>Rory Burghes</td>
<td><a href="mailto:rory.burghes@capgemini.com">rory.burghes@capgemini.com</a></td>
</tr>
<tr>
<td>Germany – Munich</td>
<td>Ronnie Kefes</td>
<td><a href="mailto:ronnie.kefes@capgemini.com">ronnie.kefes@capgemini.com</a></td>
</tr>
<tr>
<td>Netherlands – Utrecht</td>
<td>Peter Paul Tonen</td>
<td><a href="mailto:peterpaul.tonen@capgemini.com">peterpaul.tonen@capgemini.com</a></td>
</tr>
<tr>
<td>Singapore</td>
<td>Steffen Schacher</td>
<td><a href="mailto:steffen.schacher@capgemini.com">steffen.schacher@capgemini.com</a></td>
</tr>
<tr>
<td>India – Mumbai</td>
<td>Vikram Ramaranjan</td>
<td><a href="mailto:vikram.ramaranj@capgemini.com">vikram.ramaranj@capgemini.com</a></td>
</tr>
<tr>
<td>Australia – Melbourne</td>
<td>Barbera Kiefte</td>
<td><a href="mailto:barbera.kiefte@capgemini.com">barbera.kiefte@capgemini.com</a></td>
</tr>
</tbody>
</table>
About Capgemini

A global leader in consulting, technology services and digital transformation, Capgemini is at the forefront of innovation to address the entire breadth of clients’ opportunities in the evolving world of cloud, digital and platforms. Building on its strong 50-year heritage and deep industry-specific expertise, Capgemini enables organizations to realize their business ambitions through an array of services from strategy to operations. Capgemini is driven by the conviction that the business value of technology comes from and through people. It is a multicultural company of 200,000 team members in over 40 countries. The Group reported 2016 global revenues of EUR 12.5 billion.

Visit us at www.capgemini.com
People matter, results count.