

**COLLABORATIVE
INNOVATION:
THE VEHICLE
DRIVING
INDO-ISRAEL
PROSPERITY**



India and Israel have a valuable opportunity to innovate collaboratively if they bring together their complementary strengths. Our first-of-its-kind report identifies these strengths and shares an action framework that governments, large businesses and start-ups can use to combine them.

MESSAGE FROM ACCENTURE

2017 is historic for India and Israel—marking the 25th anniversary of diplomatic ties between the two nations.

During these 25 years, both nations have stepped up their cooperation largely in sectors such as agriculture, cybersecurity and defense. It's time to take this relationship to the next level, by moving from sector-specific cooperation to cross-sectoral collaboration, with the aim of fostering inclusive economic growth and maximizing human potential.

We believe innovation is the appropriate vehicle for driving this journey—for two reasons:

- The complementary strengths in Israeli and Indian innovation ecosystems can continually fuel breakthrough ideas and actions.
- Innovation will enable start-ups, large corporations and governments in both nations to collectively explore new paths toward prosperity.

We are happy that Accenture, in collaboration with NASSCOM, has been able to develop a systematic analysis of how these complementary strengths, when combined, can create new value not only for India and Israel but also for the global economy. We believe that our research provides a robust framework for start-ups and large companies alike, as well as for governments and other innovation stakeholders.

We congratulate Accenture Ventures, Accenture Research and the NASSCOM Products Council for developing this valuable research in just two months. We also thank the 57 stakeholders from the Indian and Israeli innovation ecosystems who shared their views with our research team.

We sincerely hope that this research report and the collaboration framework introduced here will help unlock new sources of prosperity and growth for India and Israel.

Rekha M. Menon

Chairman and Senior Managing Director
Accenture – India

Jacob Benadiba

Country Managing Director
Accenture – Israel

MESSAGE FROM THE INDIAN GOVERNMENT

अमिताभ कांत
Amitabh Kant
मुख्य कार्यकारी अधिकारी
Chief Executive Officer



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Foreword

I am pleased to know that **NASSCOM Products Council and Accenture** have conducted a study on '*Opportunities for Startups within the Indo-Israel Partnership*'.

India and Israel, two modern democracies built on ancient civilizations, are celebrating 25 years of their diplomatic ties this year. Our two countries are committed to continuously improving the lifestyles of our citizens harnessing the best of technologies and business practices, in a free and democratic world.

The complementary strengths of our two countries provide an excellent opportunity for collaboration. Indian and Israeli innovators have learnt the art of innovating in hard constraints - *Affordable Excellence* - having withstood various kinds of hardships and resource challenges, and know the importance in a society. In a variety of sectors such as agriculture, health, biotech, cleantech, cybersecurity, fintech and water management, *Indian Scale* can leverage *Israeli Skill* to create sustainable, better, and environmentally-friendly solutions that can be taken across the world. If all of the world's population is to have a lifestyle comparable to the citizens of developed countries without a commensurate environmental footprint, it is innovators from countries such as India and Israel who will have to step up and find sustainable, rapidly deployable, and cost-effective solutions.

India is the world's fastest growing large economy – with a GDP of more than \$2.3 trillion- coupled with the world's largest youth population. Furthermore, it is also the world's most open economy for business, and is actively encouraging investment from and to India to the world. Israeli startups interested to enter India can find excellent partners and a welcoming environment. The government's effort under the *Startup India Mission* is to establish the ecosystem that can support startups, through the Atal Innovation Mission and Invest India, and to explore ways in which Indian innovators can seamlessly integrate with the world, especially the globally renowned Israeli innovation ecosystem.

In recent decades, Israel has taken leadership in developing and deploying deep technologies and products through its startup and innovation ecosystem, just as India is the undisputed leader in software and information technology services. It will be immensely helpful for our two ecosystems to engage with each other deeply, and have stakeholder-to-stakeholder contacts so that collaborations happen organically, and frequently.

I hope this report provides the necessary impetus for Israeli and Indian innovators to mutually find partners and for the ecosystems to collaborate, to build products and services that can serve the entire world.


(Amitabh Kant)
June, 2017

FOREWORD BY ACCENTURE AND NASSCOM

In today's globalized world, India and Israel can add significant value to their own economies and the worldwide economy by combining their complementary strengths.

Israel is a vibrant country, already leveraging advanced technologies in sectors such as defense, agriculture and healthcare. It is also one of the leading innovation and technology hubs outside the United States' Silicon Valley, with 300-plus global tech leaders having achieved a local presence. The country also spends 4.2% of its gross domestic product (GDP) on research and development, highlighting its sharp focus on innovation and research.

India is a young and fast-growing economy – with the 6th largest GDP in the world. The nation is undergoing rapid digital transformation, with more than 432 million Internet users, 100 potential smart-city projects and the world's largest biometric system. India also boasts strong manufacturing and IT and business process management (BPM) services capabilities—making it a leading outsourcing destination for companies around the globe. At the same time, it is home to more than 4800 IT-product startups.

Both countries' innate strengths complement each other. India can help Israeli start-ups scale, and can serve as a test bed for Israel's tech innovation. Through collaboration, the two countries can co-develop cost-effective products and solutions that score major successes in markets around the globe. Similarly, while India can benefit from Israel's strength in core technologies, Israel can leverage India's manufacturing and services capabilities, along with its huge software talent base.

Our discussions with 50-plus experts from India and Israel reveal that sectors such as agriculture, defense, deep technology, healthcare & life sciences and energy stand to benefit the most from such collaborations.

Furthermore, conscious efforts to combine entrepreneurs' strengths can drive incremental long-term FDI for both nations, if Indian and Israeli entrepreneurs can sharpen their awareness of one another's strengths and adapt to their inherent differences.

Corporations in both countries have already begun exploring each other's markets. But to take their collaboration to the next level—including fostering inclusive economic growth—they need to sharpen their understanding of the diverse ways in which they can collaborate and define clear roadmaps for proceeding.

On the 25th anniversary of the establishment of diplomatic ties between the two nations, NASSCOM and Accenture present this report, **Collaborative Innovation: The vehicle driving Indo-Israel prosperity**. The report sheds light on the opportunities and imperatives that must be met for the two countries to move towards Alliance 2.0—allowing both nations to transcend from the orbit of cooperation to collaboration. We conclude the report by recommending creation of a program that we call **IINSPIRE (Israel INDia Start-up Platform for Innovative Research and Entrepreneurship)**, which aims to unleash the combined power of these two nations around the globe by uniting their strengths across three areas: talent, technology and temperament.

Here, you will find a wealth of compelling facts, insights, expert advice, recommendations and case stories that we hope will inspire you to action—whether you work in government, for a large enterprise or for a start-up, and whether you are based in Israel or India.

R. Chandrasekhar
President, NASSCOM

Avnish Sabharwal
Managing Director,
Accenture Ventures, India

“The complementary strengths of Israel and India in the field of innovation make us natural partners in creating new-to-market value.”

Amitabh Kant, CEO, Niti Ayog

“Israel is already the number one start-up nation. India is the fastest starting-up nation. An Indo-Israeli partnership should lead to one plus one equals eleven.”

Dr. Ramesh Mashelkar,
President, Global Research Alliance

“During my days working with Dr. APJ Abdul Kalam, he would often tell me that India can only be empowered by science and technology. We both reckoned that Israel could be a natural partner there. It further helps that mindsets and cultures are very similar in both the countries.”

Professor Isaac Ben-Israel,
Chairman, Israel Space Agency

“To move towards India-Israel Alliance 2.0, it is important for start-ups and large corporations to exchange use cases, market access methods, and localization techniques that have been successfully executed in the past.”

R. Chandrashekhar, President, NASSCOM

“Together, India and Israel can drive innovative value beneficial not only to themselves but for the entire world. We look forward to actively shaping this journey of collaborative value creation”

Rekha M. Menon,
Chairman, Accenture India

“The coming together of start-ups from India and Israel has the potential to disrupt the global innovation landscape, especially in the field of deep technology. And we will be glad to drive this collaboration with other stakeholders.”

Jacob Benadiba,
Country Managing Director,
Accenture Israel

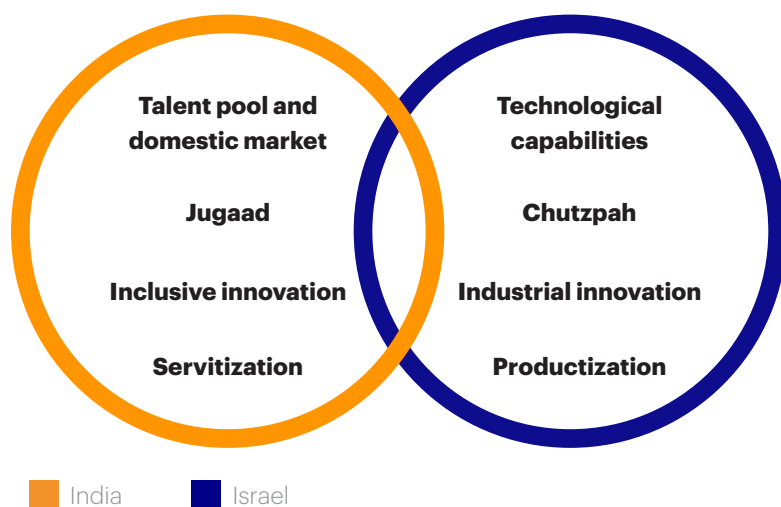
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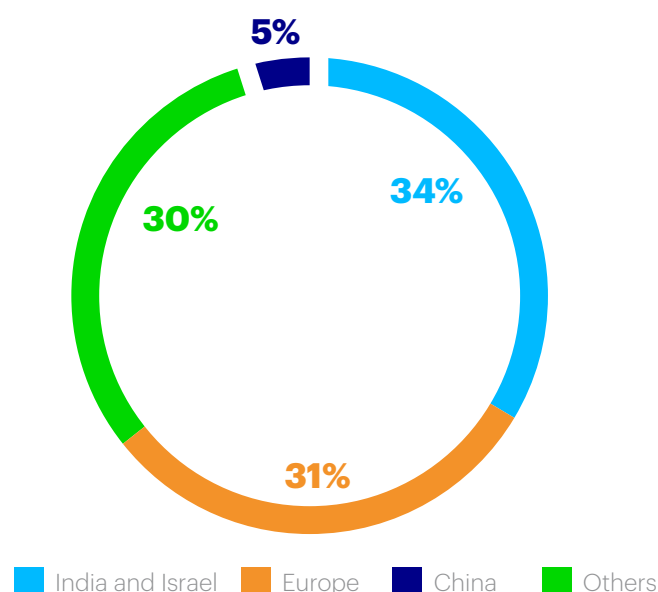
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COLLABORATIVE INNOVATION: THE VEHICLE DRIVING INDO-ISRAEL PROSPERITY

India and Israel share unique innovation complementarities...



Together, India and Israel can be a tour-de-force...



More than 1/3rd

of all American start-ups with billion dollar valuations have an Indian or Israeli founder. This number is far greater than all such companies founded by entrepreneurs from the entire European continent.

More than 50 experts we spoke to helped us identify the top 5 sectors which stand to benefit the most from increased innovation-collaboration between India and Israel.



AGRICULTURE



DEFENCE



DEEP TECH





**HEALTHCARE &
LIFESCIENCES**

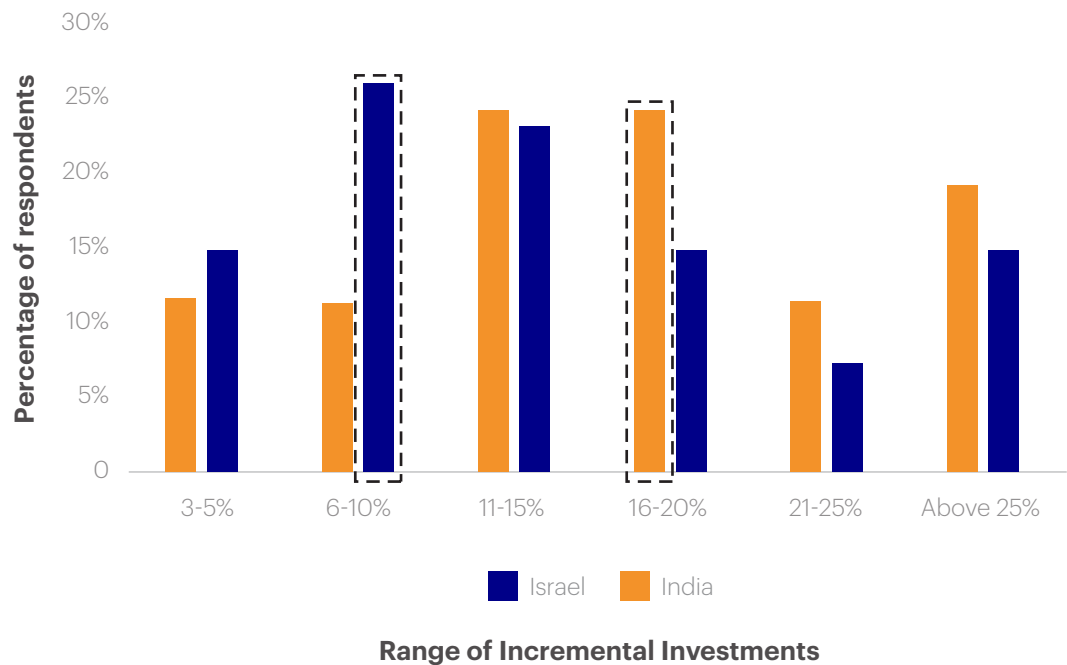


ENERGY

Large businesses and governments can enjoy a range of benefits through greater collaboration between Indian and Israeli start-ups across these five sectors.

COUNTRY/ ECOSYSTEM PLAYER	INDIA	ISRAEL
LARGE BUSINESSES 	<ul style="list-style-type: none"> • Innovation agility • Access to disruptive thinking and processes • Access to state-of-the-art innovation infrastructure 	<ul style="list-style-type: none"> • Development of new-to-market products and services • Competitive positioning in global markets • Enhanced proficiency at building world class solutions
GOVERNMENT AGENCIES 	<ul style="list-style-type: none"> • Better use of hi-tech to build developmental solutions • Access to global networks of social innovators • Enhanced proficiency in developing people-centric solutions 	<ul style="list-style-type: none"> • Better use of hi-tech to build developmental solutions • Enhanced proficiency in developing people-centric solutions • Development of new-to-market products and services

Greater innovation collaboration between the two nations is expected to lead to greater cross-border investment flows.



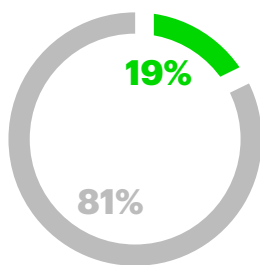
70% of experts surveyed believe that combining the strengths of indian and israeli innovators can lead to an incremental flow of innovation driven investments across both nations in the next three years.

Key collaboration challenges...

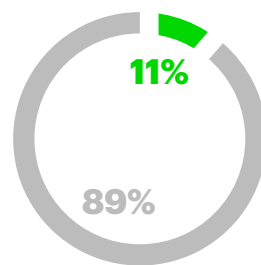
ADAPTABILITY DEFICIT

- Understanding and managing diverse decision making and communication styles
- Tailoring products and services to local markets
- Entering new markets

AWARENESS DEFICIT



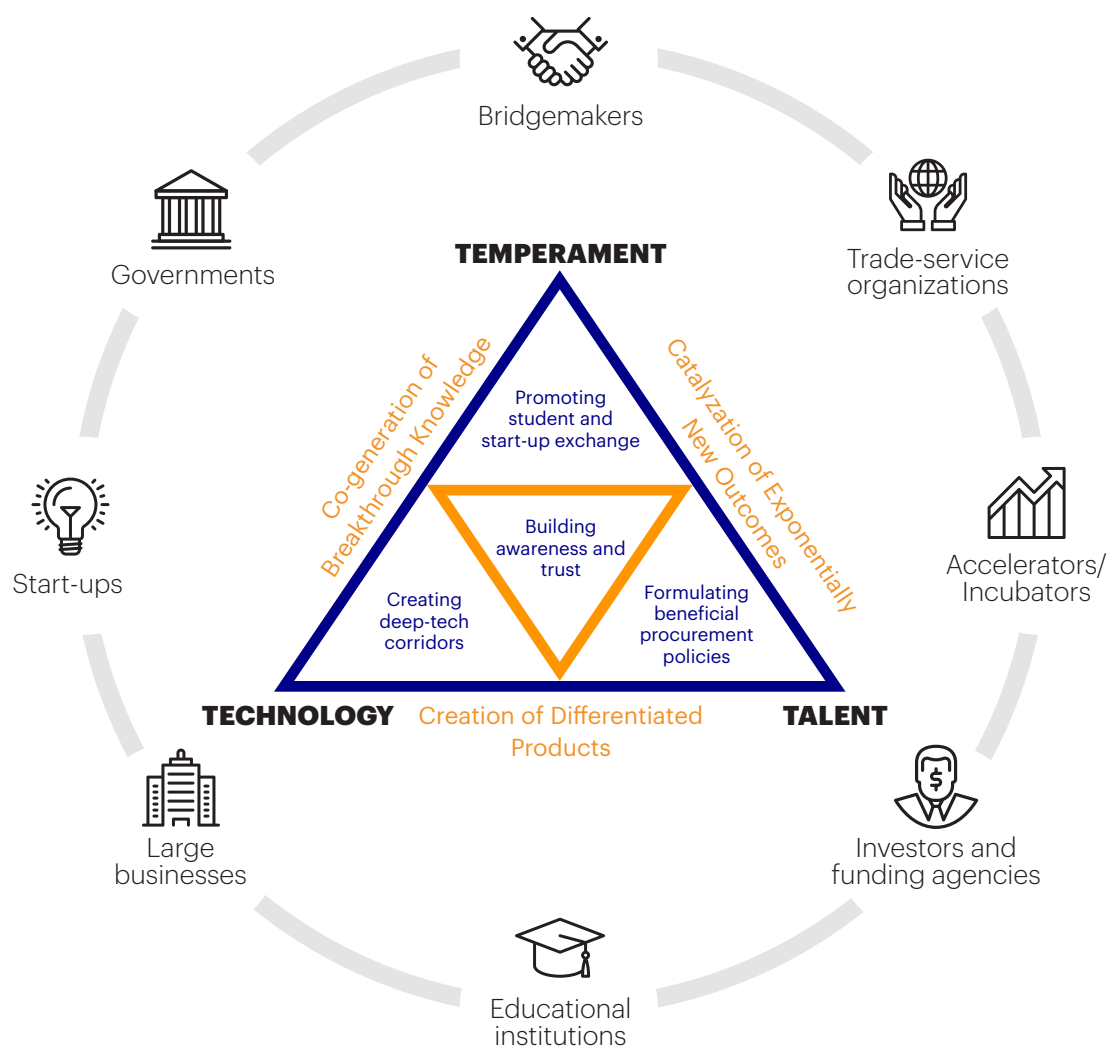
Only 19% of survey respondents believe that there is a significant level of awareness among indian and israeli entrepreneurs about each other's strengths



Only 11% of experts believe that there is significant level of awareness about combined opportunities to be unlocked through synergistic collaborations

Accenture and NASSCOM present IINSPIRE (Israel-INDia Startup Platform for Innovative Research and Entrepreneurship) to drive innovation synergies across India and Israel in a structured, systematic and a time bound manner.

COMBINING STRENGTHS TO CREATE MUTUAL PROSPERITY








CHAPTER I: UNDERSTANDING THE INNOVATION STRENGTHS OF INDIA AND ISRAEL

Over the past 25 years, India and Israel have opened their key sectors to greater cooperation. (See Figure 1.)

During this period, bilateral trade between the two countries has increased more than 24 times, from just over US\$200 million in 1991-1992ⁱ to US\$4.9 billion at the end of 2015-2016.ⁱⁱ

Figure 1: Key sectors have witnessed greater Indo-Israel cooperation

SECTOR	COOPERATION EXAMPLES
Agriculture and Water Resources 	<ul style="list-style-type: none"> • Bilateral agreement for cooperation in agriculture • Memorandum of understanding (MoU) for cooperation in water resources management
Science and Technology 	<ul style="list-style-type: none"> • Science and technology cooperation agreement in 1993 • MoU for Industrial Research and Development Initiative signed in 2005 • i4RD (an industrial R&D fund) to promote joint projects
Aerospace and Defense 	<ul style="list-style-type: none"> • Meetings between the Indian Space Research Organization and the Israel Space Agency held in the last three years • Defense technologies from Israel imported to India, including medium-range surface-to-air missile systems worth US\$2 billion in 2017
Education 	<ul style="list-style-type: none"> • 21 MoUs between Indian and Israeli academic institutions in 2016
Cybersecurity 	<ul style="list-style-type: none"> • Annual cyber roundtable involving academic and business leaders from both countries

Source: “India-Israel Relations”, Ministry of External Affairs, Government of India (June 2017)

The time has come to elevate the relationship between India and Israel from sector-specific cooperation to cross-sectoral collaboration with shared goals and objectives. Successful cooperation in agriculture, water resource management and defense – sectors with enormous sociopolitical significance for both nations – has established the trust, essential for driving broader and longer-term collaboration. Moreover, both nations need each other more than ever. Large businesses in India need technologies that can give their products a competitive edge in the domestic as well as international markets – and Israel excels in technology. Israel requires stable export markets (other than China, the EU and the US) to keep its growth engine humming, and India is precisely such a market.

To drive sustained cross-sectoral collaboration, both nations must bring together their complementary strengths. We view innovation as the vehicle for achieving this objective.

INNOVATION COMPLEMENTARITIES

Both India and Israel have matured on their path to innovation. (See Figure 2.) But each has done so in its own way. As they have traveled that path, the two nations have built strengths that complement each other.

Figure 2: Indian and Israeli innovation ecosystems

INDICATOR	INDIA	ISRAEL
Start-ups¹ (2016)	4,600-5,000	4,500-4,600
Incubators and accelerators² (2016)	140+	130+
Total amount raised by start-ups (2016)	US\$4.0 billion	US\$4.8 billion
Total early-stage entrepreneurial activity³ (2016)	10.6%	11.3%

Sources: “Indian Start-up Ecosystem Maturing”, NASSCOM (2016); “Global Report 2016/17”, Global Entrepreneurship Monitor (2016); “In 2016, \$4 billion invested in Indian startups – deal value decreased 55%, volume increased by 3% from 2015”, Yourstory (December 31, 2016); “IVC-ZAG: Israeli startups raise record \$4.8b in 2016”, Globes (January 10, 2017)

¹ Data as of October 2016. Includes technology product start-ups incorporated from 2011 onward.

² Technology product start-up incubators and accelerators only

³ Total early-stage entrepreneurial activity: the percentage of people age 18-64 who are nascent entrepreneurs or owners-managers of new businesses

⁴ INR 1 = US\$ 0.016 on June 12, 2017.

Indian jugaad—and Israeli chutzpah

Indian entrepreneurs have a jugaadⁱⁱⁱ mindset, characterized by the willingness and ability to innovate rapidly and frugally and to improvise simple solutions by making the most of limited resources. Thanks to this mindset, Indian entrepreneurs excel at delivering highly customized products. For instance, Zoho created a customized financial product suite for small and medium enterprises (SMEs) in view of the introduction of the Goods and Services Tax. The company went to market with the offering in less than a year and was among the first to introduce such a product in the Indian market. The product costs just INR2,999 (US\$47)⁴ per month, making it highly attractive to customers.^{iv} Bangalore-based Razorpay is another case in point. During the recent liquidity crunch in India, Razorpay built a new product called eCOD in just days. The solution enables consumers to pay for products ordered online through UPI (Universal Payments Interface), multiple wallets and other online options at the time of delivery. The product has no hardware, and Razorpay created it with minimal development expenditure.^v

Israeli entrepreneurs possess chutzpah,^{vi} a blend of audacity, determination and the ability to take fast action in any endeavor. Thanks to chutzpah, Israeli entrepreneurs are extremely competent at product innovation and industry disruption. Consider Freightos. Israeli founded and Hong Kong based, this start-up was launched in early 2016 but is already taking the shipping industry by storm. The company counts among the first to offer a digital marketplace that lets companies book freight online. Freightos gets bids from multiple freight forwarders within

seconds rather than days, and at prices lower than offline alternatives—saving time and money for users.^{vii}

What happens when Indian jugaad comes together with Israeli chutzpah? Game-changing, “blue sky” products, birthed by breakthrough ideation, satisfying customers’ immediate needs take shape.

India’s inclusive innovation—and Israel’s industrial innovation

Indian entrepreneurs have pioneered the art of creating products and services that combine affordability with excellence. This inclusive approach to innovation enables them to scale rapidly and cater to India’s diverse consumer base. For instance, through its do-it-yourself platform, Pune-based Plobal Apps helps both traditional and new businesses in India develop native mobile apps at remarkable speed: under 10 minutes. Since 2014, Plobal has helped more than 500 SMEs in the hospitality, lifestyle and e-commerce space develop 1,000-plus apps and establish a digital presence.^{viii} Freshdesk offers another example. Founded in 2010, the company set out to offer small businesses affordable software solutions for customer support, tailored to their customer bases. Today, the company boasts more than 100,000 clients that include renowned international brands 3M, Cisco and Honda.^{ix}

Similarly, Israeli entrepreneurs have become experts at building products and offerings that find a ready industrial audience in global markets. Take Viber, an Israeli instant messaging application founded in 2010. Viber acquired a global base of 300 million users by 2014, and Rakuten acquired it for US\$900 million that same year.^x Meanwhile, Similar Web,

an Israeli digital marketing intelligence platform, initially targeted global markets and now serves eBay, Microsoft, Samsung and Alibaba, among others.^{xi}

Notes Ajay Nanavati, who led 3M in Israel, “Israelis have historically been very western, developed markets oriented and are not conversant with emerging market needs - though they are now consciously looking eastwards. This is where India can add value by leveraging frugal innovation and providing a platform for emerging markets applications. Israelis, on the other hand, have developed a robust innovation driven, tech-savvy eco-system built around a greater risk appetite which Indians can leverage to develop global solutions.”

India’s domestic market and talent pool—and Israel’s technological capability

As the world’s second most populous country, India is home to more than 1.3 billion individuals. This translates into a huge domestic market for Indian businesses and start-ups, and it creates an immense talent pool. Indeed, by 2021, India will have the largest developer population worldwide, topping the US.^{xii}

Meanwhile, Israelis are renowned for their competence in technology. With one of the highest concentrations of technology start-ups globally, Israel has innovation ecosystems that have become hotbeds of next-generation high-tech products. Massive R&D investment by the Israeli government supports these companies’ growth. In 2016, Israel spent 4.2% of its domestic resources on research and development (R&D).^{xiii}

As Moises Cohen, an entrepreneur from Israel, put it, “When collaborations happen – start-ups from Israel will get access to one of the biggest markets in the world. There is potential to develop deep technologies. Indian start-ups and companies will bring engineering knowledge and Israeli start-ups will bring innovation.”

India’s services excellence—and Israel’s product excellence

Indian entrepreneurs and companies have mastered the art of technology-related services, and India today is considered the world’s software services capital. In FY-2017, the value of India’s IT and BPM exports, most of which take the form of services, stood at US\$117 billion. Moreover, about 60% of all technology product start-ups in India have business-to-consumer (B2C) businesses, which revolve around services. These include unicorns such as Flipkart, Ola and Snapdeal, among others.

Israel, for its part, has a strong background in product innovation, and has birthed disruptive companies such as M-systems and Mobileye, among others. While M-systems developed the world’s first USB thumb drive,^{xiv} Mobileye has become a leading supplier of autonomous driving software to more than 25 automakers across the globe.^{xv} Given Israel’s strong product capabilities, it comes as no surprise that the country’s high-tech exports accounted for 49% of its total exports in 2016.^{xvi}

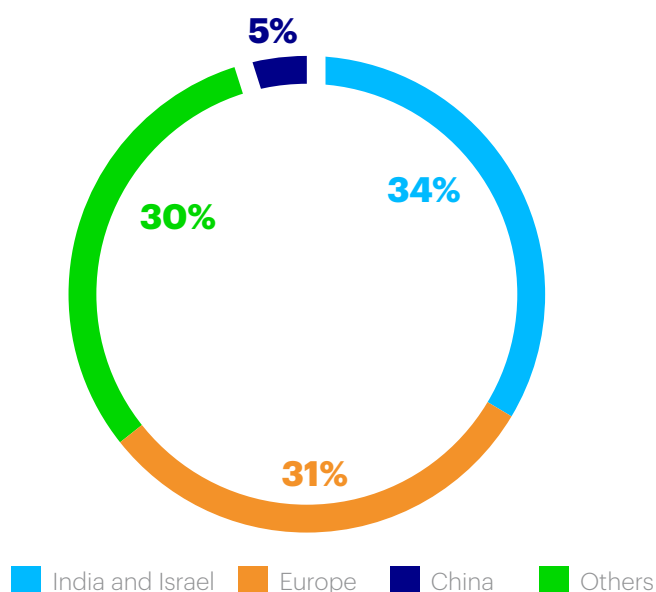
Brought together, the two nations’ competencies in services and product innovation can galvanize creation of innumerable game-changing offerings.

A TOUR DE FORCE

Israel has built strong capabilities in technology, intelligent systems, defense and cybersecurity, and is setting global standards in areas such as artificial intelligence (AI) and machine learning. India, meanwhile, has a large domestic market, a large public sector, big corporations, strong IT services and an expanding landscape of product start-ups. By combining these assets, the two nations can unlock new value not only for themselves and each other, but also for other economies around the world.

The United States' start-up ecosystem has already experienced this impact. More than 33% of US start-ups with billion-dollar valuations have an Indian or Israeli founder.^{xvii} This number is far greater than all such companies founded by entrepreneurs from the entire European continent. (See Figure 3.)

Figure 3



Sources: "Immigrants and Billion Dollar Startups", National Foundation for American Policy (March 2016); Accenture analysis

CHAPTER II: COMBINING INDIAN AND ISRAELI STRENGTHS

As part of our survey and our conversations with influential stakeholders in Indian and Israeli innovation ecosystems, we sought to learn more about which sectors stand to benefit most from combining both nations' innovation strengths. (See Figure 4.)



Figure 4: Numerous sectors can benefit from increased collaboration between Indian and Israeli businesses






Source: Accenture-NASSCOM, India Israel Survey, 2017

These efforts also helped us identify the top five sectors that are candidates for collaboration between India and Israel: agriculture, defense, deep technology, healthcare & life sciences and energy. In addition, the experts we spoke with shed light on how start-ups and businesses across India and Israel can create new value by combining their innovative strengths. (See Figure 5.)

Figure 5: Experts identify how key sectors can benefit from Indo-Israeli collaboration

SECTOR	OPPORTUNITIES
Agriculture 	<p>Farming technology: Israeli start-ups can share breakthrough technologies in areas such as drip irrigation, soil solarization and vertical farming with India, boosting Indian farmers' productivity and opening a new market for Israeli start-ups.</p> <p>Big Data analytics: Using Big Data analytics, Israeli start-ups can process images gathered by Indian satellites and help farmers make more informed decisions.</p> <p>Unmanned aerial vehicles (UAV): UAVs co-developed by India and Israel can support monitoring of crops in India and Israel.</p> <p>Water-recycling technologies: Israel's water-recycling technologies can help Indian farmers make the most of available water—which is vital, given that India depends heavily on seasonal monsoons for agriculture.</p> <p>Agri-tech start-ups: Indian accelerators can serve as a platform for harvesting Israeli agri-tech start-ups.</p>
Defense 	<p>Indigenous defense base: Indo-Israeli collaboration in defense can help strengthen Indian R&D and promote development of a robust indigenous defense-production base, while enabling Israeli companies to expand into new markets.</p> <p>Manufacturing: India's <i>Make in India</i> initiative provides a manufacturing platform conducive to collaboration between the two countries. Israeli companies can partner with their Indian counterparts, offering skilled labor and a low-cost production base, to enable cost-effective joint manufacturing.</p> <p>After-sales and maintenance: Israeli defense companies can leverage India's engineering talent to develop a global maintenance fleet for servicing defense equipment globally.</p>



SECTOR	OPPORTUNITIES
Deep tech 	<p>Software platforms: Israeli start-ups excel at developing technology-driven platforms. Indian companies—IT and non-IT—looking to build such capabilities can invest in or acquire such start-ups in Israel.</p> <p>Smart manufacturing: Israel’s significant base in the Internet of Things (IoT), cloud computing, robotics and AI can help accelerate Indian manufacturers’ shift toward smart manufacturing.</p> <p>Product development: Indian engineering talent can support product development for Israeli start-ups and help close the talent gap currently afflicting Israel.</p> <p>Cybersecurity: India’s extensive industrial and defense base constitutes a large market for Israeli cybersecurity companies.</p>
Healthcare & Life sciences 	<p>Knowledge sharing: Hospitals in India can benefit from Israeli healthcare start-ups that are pioneering technologies in such areas as imaging and connected devices.</p> <p>Rural healthcare: Collaboration among Indian companies and Israeli healthcare start-ups can foster development of cost-effective healthcare solutions for rural India.</p> <p>Product testing: Israeli companies can use India as a test bed for their products before global launches.</p> <p>Global healthcare: Partnerships between India’s large pharmaceutical companies and Israeli start-ups can facilitate affordable drug discovery vital for fighting global diseases.</p>
Energy 	<p>Renewable batteries: Indian car and generator manufacturers can benefit from Israeli capabilities in the renewable-battery space.</p> <p>Clean energy: Israel’s leadership in clean-energy technologies can help India meet its ambitious renewable-power-generation targets and achieve its climate goals.</p>

Source: Accenture-NASSCOM, India Israel Survey, 2017

KEY BENEFITS FROM INDO-ISRAELI INNOVATION COLLABORATION

The stakeholders we interviewed also pointed to key benefits that would accrue to large businesses and governments in India and Israel from collaborations between start-ups in their two countries. (See Figure 6.)

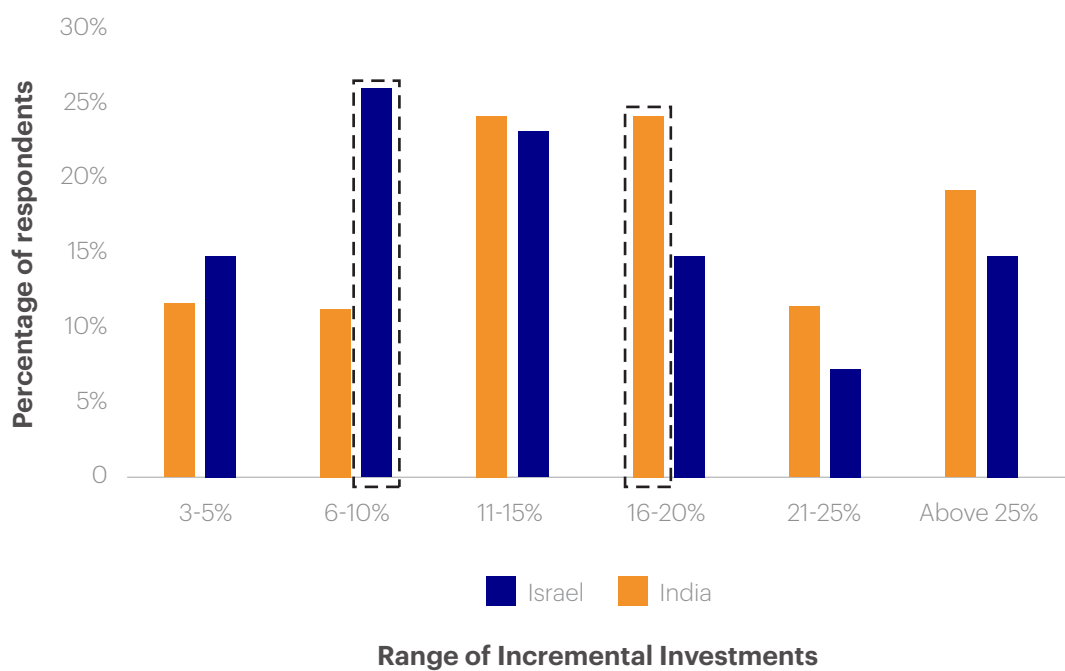
Figure 6: Indian and Israeli businesses and government agencies can benefit from innovation collaboration

ECOSYSTEM PLAYER	INDIA	ISRAEL
Large businesses 	<ul style="list-style-type: none"> • Innovation agility • Access to disruptive thinking and processes • Access to state-of-the-art innovation infrastructure 	<ul style="list-style-type: none"> • Development of new-to-market services • Competitive positioning in global markets • Enhanced proficiency at building world-class solutions
Government agencies 	<ul style="list-style-type: none"> • Better use of deep-tech to drive development • Access to global networks of innovators • Enhanced proficiency in developing people-centric solutions 	<ul style="list-style-type: none"> • Better use of deep-tech to address complex global developmental problems • Enhanced proficiency in developing scalable solutions • Development of products for emerging markets

Source: Accenture-NASSCOM, India Israel Survey, 2017

A large majority (70%) of the experts we spoke with also believe that combining the strengths of Indian and Israeli innovators can help spur innovation-driven FDI across both nations. (See Figure 7.)

Figure 7: Collaboration can help drive incremental investment in India and Israel



Source: Accenture-NASSCOM, India Israel Survey, 2017

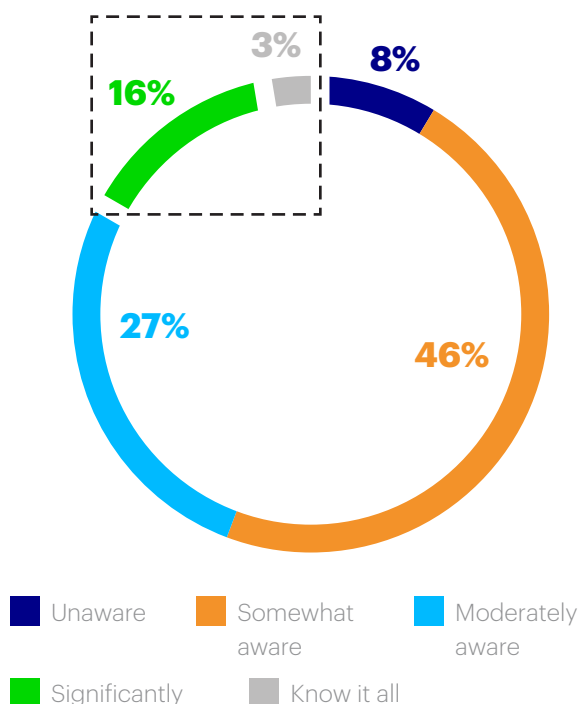
KEY COLLABORATION CHALLENGES

While acknowledging the valuable opportunities that collaboration can present for India and Israel, our research participants also highlighted challenges that could make seizing those opportunities difficult.

Awareness deficit

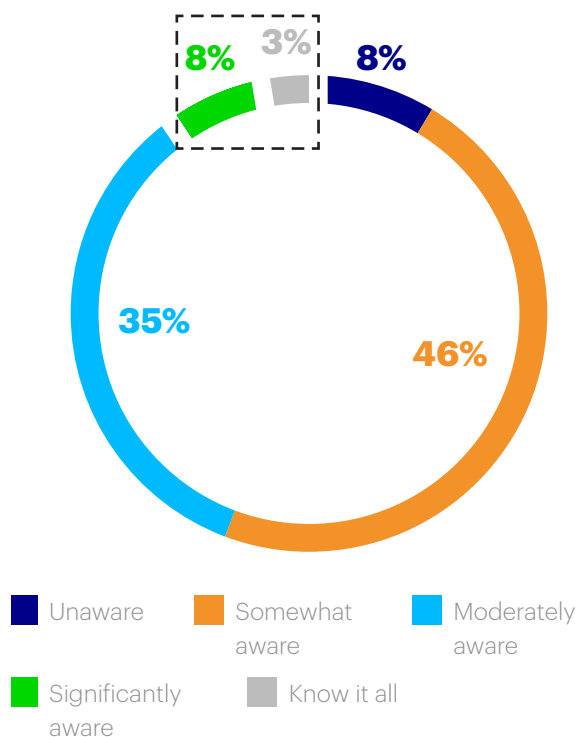
Only 19% of our survey respondents believe that Indian and Israeli entrepreneurs are fully aware of each other's strengths. (See Figure 8.) And a miniscule 11% believe that there is enough awareness of opportunities that collaboration could unlock. (See Figure 9.)

Figure 8: Few Indian and Israeli entrepreneurs are aware of each other's strengths



Source: Accenture-NASSCOM, India Israel Survey, 2017

Figure 9: Few Indian and Israeli entrepreneurs are aware of opportunities that collaboration could present



Source: Accenture-NASSCOM, India Israel Survey, 2017

Adaptability deficit

Our interviewees directed our attention to three key areas in which Indian and Israeli entrepreneurs will need to adapt to one another's differences before they can step up their collaboration:

A. Understanding and managing diverse decision-making and communication styles

Israeli entrepreneurs tend to make decisions and act quickly. This style differs from the style often seen in large, complex public- and private-sector organizations in countries such as India. The difference can spawn tension between collaborators. For instance, an Israeli start-up recently exited an accelerator program run by a large Indian business house because the entrepreneurs had difficulty understanding why the conglomerate insisted on a lengthy analysis and approval process before it could acquire a strategic stake in the start-up.

At the same time, Indian start-ups and large businesses will need to become more direct in their communication with Israeli entrepreneurs to foster closer collaboration. As Varadrajan Krish, a digital entrepreneur from India, pointed out, "Indian entrepreneurs do not want to say to someone's face that a product will not work as it may sound offensive. But it is the exact opposite in Israel. Israelis are very upfront in what they want to convey to you. Such cultural differences between India and Israel reflect in the growth and success of our respective start-up ecosystems but can also act as a potential barrier when collaborations happen."

B. Tailoring products and services to local markets

Israeli start-ups are accustomed to developing products for mature markets such as the US and Europe. This experience can make it difficult for them to understand the cost constraints in developing markets like India. The price and value equation in India often makes selling Israeli products in India a complicated task. Indian entrepreneurs also face challenges in tailoring their offerings to their Israeli counterparts' needs. Notes Kunal Desai, a venture capitalist, "Israeli entrepreneurs will be better positioned if they understand the Indian customer needs and expectations and alter their product/ service, price point and go-to-market in-line to make the value proposition more compelling for the Indian market. Similar, efforts need to be made by Indian entrepreneurs taking their products/ services to Israel."

C. Entering new markets

Most Indian start-ups look to scale their businesses and develop products and technologies that have an existing user base. By contrast, Israeli start-ups tend to work with up-and-coming technologies that hold enormous potential for the future. And while Indian entrepreneurs often focus on long-term gains, Israeli entrepreneurs tend to seek quick exits and short-term valuations. This difference can make collaboration between the two a challenging proposition. Bibi Rosenbach, ex-CEO of Kryon Systems, put it this way: "Unlike in India where it is more about building large companies, Israeli entrepreneurs have a mindset to build and sell relatively smaller scale organizations. Israeli entrepreneurs concentrate on smart initiatives and execution vs. large scale mass production."

CHAPTER III:

IINSPIRE

THE FRAMEWORK TO COMBINE COMPLEMENTARY STRENGTHS OF INDIAN AND ISRAELI INNOVATION ECOSYSTEMS

Clearly, India and Israel possess complementary strengths in three areas:

Talent

India's software engineering talent and Israel's deep-tech talent can collaboratively innovate products and solutions for global audiences, disrupting the business landscape in the process.

Technology

India's expertise in services and B2C products dovetails with Israel's competency in products and B2B offerings.

Temperament

Combining India's jugaad mindset with Israel's chutzpah can drive delivery of world-class, affordable products and solutions at scale.

But to capitalize on these complementary strengths, ecosystem players in India and Israel will need to find ways of deepening relationships and strengthen understanding of each other's markets with the active support of each other.

A few businesses from India and Israel have already begun this journey.

Reliance Industries Ltd. (RIL) has deepened its relationship with the Israel innovation ecosystem beyond the typical business engagements by displaying its intent to build innovation incubators in Israel. (For more on RIL, please see Case study 1).





Rivulis, an Israeli mid-size micro-irrigation company, has formed a board consisting of experts from India to accelerate creation of value beneficial to markets. (For more on Rivulis, please see Case study 2).

Nanorep, a matured Israeli start-up, found a way to generate access to different customer segments through seeking references from its larger B2B clients such as ICICI Bank and Yatra.com. (For more on Nanorep, please see Case study 3).

Cyient, an Indian company focused on engineering, networks and operations, established a subsidiary in Israel, partnered with companies such as Micronet Enertec and is actively investing in Israeli funds which focus on engineering and IoT start-ups to make in-roads into the Israeli market. (For more on Cyient, please see Case study 4).

Agriculture, defense, deep technologies, healthcare & life sciences and energy, identified as sectors that stand to gain the most from combining complementary strengths of the two innovation ecosystems, are also witnessing some early action. (See Figure 10.)

Figure 10: Key sectors are benefiting from collaborations between India and Israel

SECTOR	INITIATIVE
Agriculture 	Indo-Israel Agriculture Project <p>The Indo-Israel Agriculture Project is a collaborative government-led effort comprising 15 centers of excellence^{xviii} (CoEs) in agriculture and horticulture within India. Each CoE demonstrates best practices that have been tailored to Indian conditions. Knowledge exchange between ecosystem players from both nations has played a central role in the initiative's success, and the CoEs have generated impressive results. For instance, in its first three years of operation, the Gharaunda CoE's work led to a 5 to 10 fold increase crop production, a 65% reduction in water use and decreased use of pesticides and fertilizers.^{xix}</p>
Healthcare & Life sciences 	Med4Dev <p>The first India-Israel hackathon, Med4Dev was organized by the Tel Aviv-based Pears Program for Global Innovation at Tel-Aviv University. The initiative has helped bring together innovators, developers, entrepreneurs and healthcare experts from the two countries to find low-cost solutions to India's healthcare problems.^{xx}</p>
Defense 	Micronet Enertec/Cyient partnership <p>In early 2017, Israel's Micronet Enertec and India's Cyient jointly bid on contracts that are part of India's Aerospace and Defense Procurement Procedures. As part of the collaboration, Micronet Enertec will lead planning and design, while Cyient will lead procurements and production in India.^{xxi}</p>
Deep tech 	IoT investment fund <p>India's Tata Group, along with Tel Aviv University and Pitango Venture Capital, has partnered with companies such as General Electric and Microsoft to establish an IoT-focused investment fund. The US\$20 million fund aims to invest in early-stage deep-tech ventures in Israel and help them scale for global markets.^{xxii}</p>

These and other achievements are laudable, but to deliver maximum value, such efforts need to be scaled across India and Israel. And that will require a systematic approach and an institutionalized framework. (See Figure 11.)

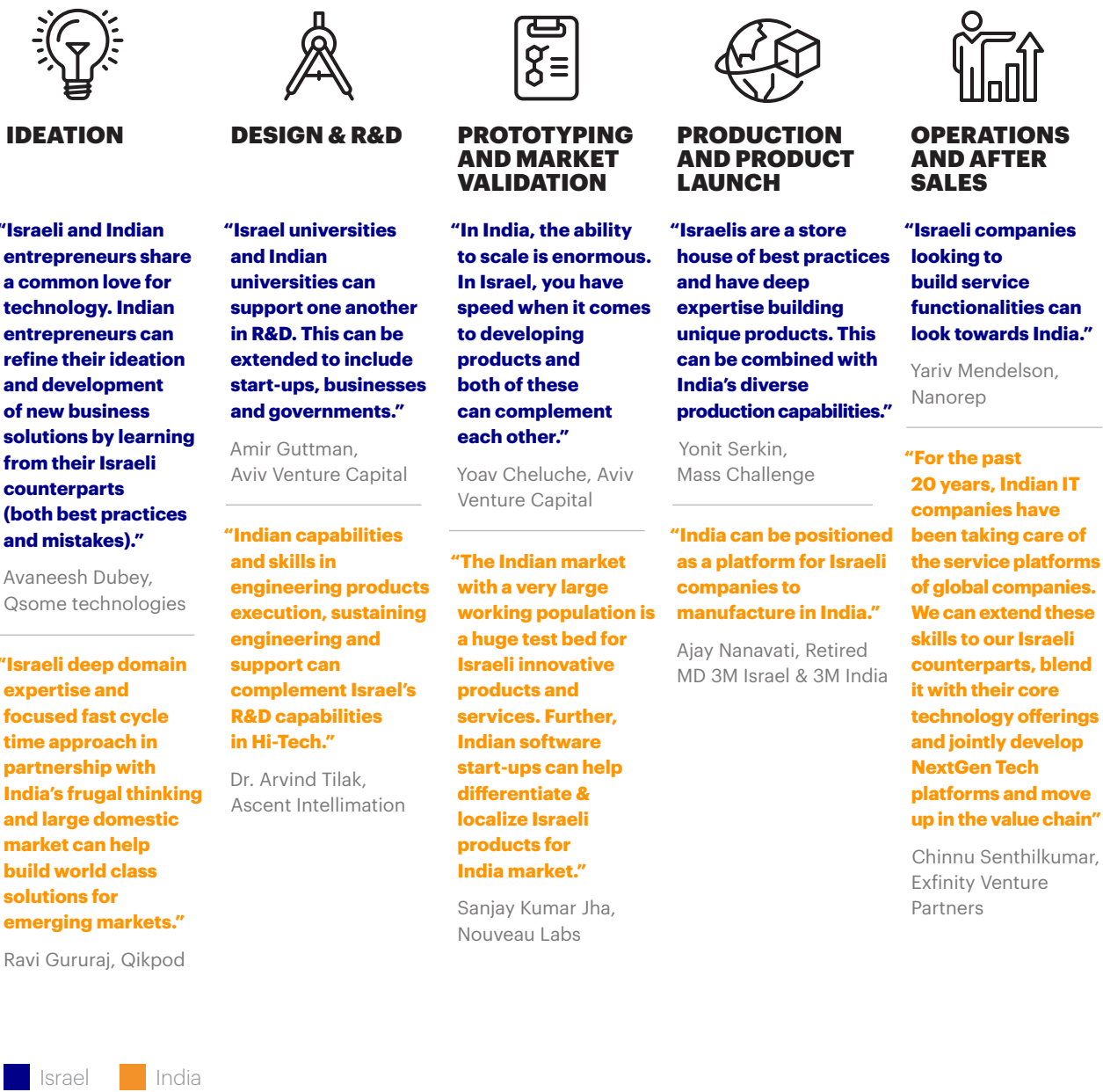
Figure 11: Scaling Indo-Israeli collaboration will require systemized action on multiple fronts



Source: Accenture-NASSCOM, India Israel Survey, 2017

Experts we interviewed have also shared interesting views on how innovation stakeholders across both nations can exploit complementary competencies across the innovation value chain. (See Figure 12.)

Figure 12: India and Israel must exploit complementarities across the innovation value chain



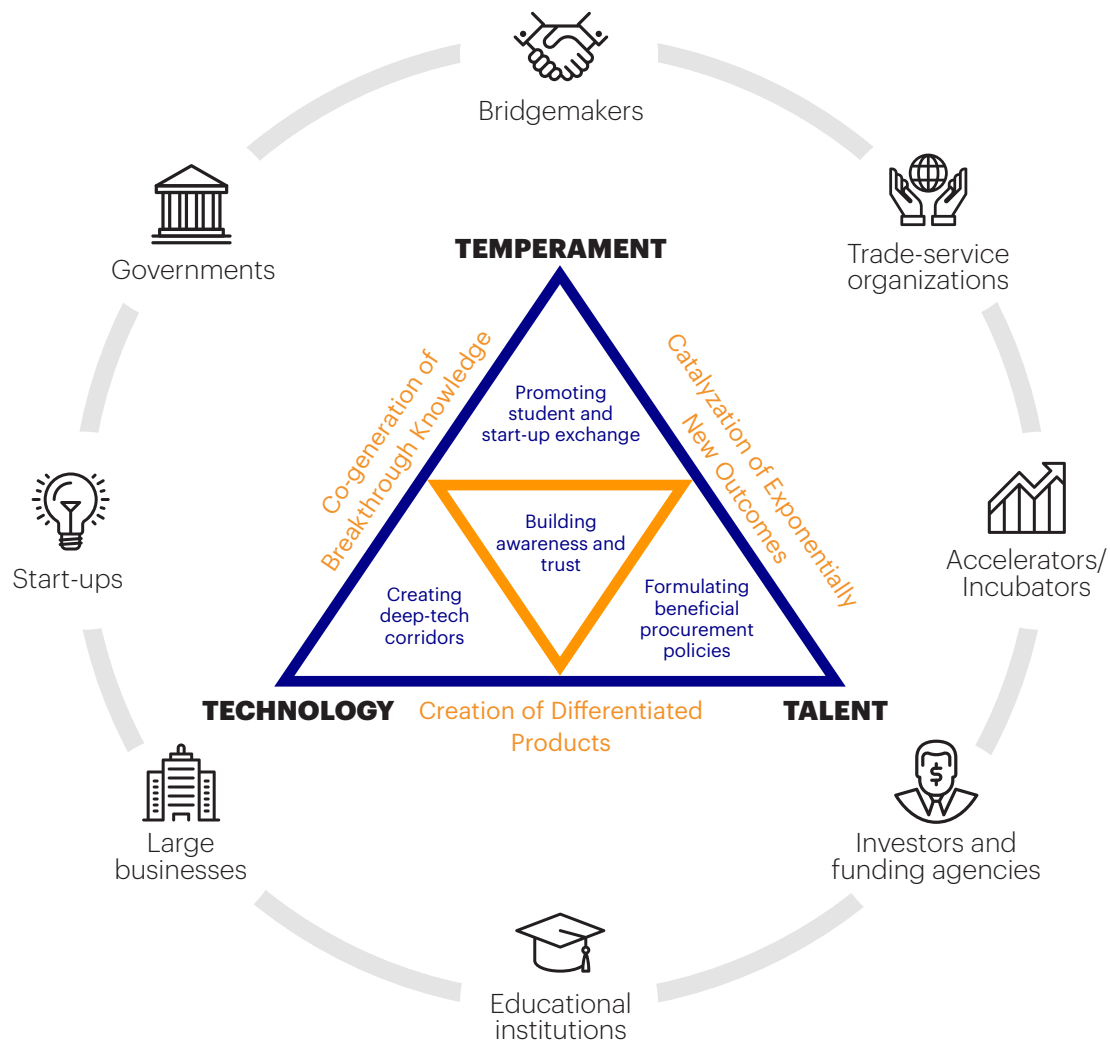
Source: Accenture-NASSCOM, India Israel Survey, 2017

INTRODUCING THE IINSPIRE FRAMEWORK AND VISION 25/25

Drawing insights from discussions with stakeholders, Accenture and NASSCOM have defined IINSPIRE (Israel-India Start-up Platform for Innovative Research and Entrepreneurship) as a framework for fostering systematic, disciplined innovation synergies between India and Israel by leveraging the two nations' complementary strengths in talent, technology and temperament. (See Figure 13.)

Figure 13: The IINSPIRE framework combines Indian and Israeli strengths to create mutual prosperity

COMBINING STRENGTHS TO CREATE MUTUAL PROSPERITY



We believe that, implemented effectively, the IINSPIRE framework could support realization of what we call Vision 25/25: Cumulative cross-border investment of **US\$25 billion** in Indian and Israeli start-ups by 2025, with the goal of creating **25 products** with global revenues of US\$1 billion each by 2025 across sectors considered high priority in India and Israel.

The vision is ambitious yet achievable.

Accelerated spending in sectors such as IoT (US\$3 trillion by 2020)^{xxiii}, Security (US\$101.6 billion by 2020)^{xxiv}, Artificial Intelligence (US\$47 billion by 2020)^{xxv} and Smart Agriculture (US\$ 11.23 billion by 2022)^{xxvi} opens markets with enormous potential for products collaboratively innovated by Israeli and Indian startups and large businesses under the auspices of IINSPIRE.

STRATEGIES FOR ACHIEVING VISION 25/25

We propose the following three strategies for achieving Vision 25/25:

STRATEGY	EXPECTED BENEFITS
Co-generate breakthrough knowledge in B2B and B2C deep-technology applications	<ul style="list-style-type: none"> • R&D intensity of Indian and Israeli start-ups will be enhanced. • Start-ups in both countries will collectively constitute a global R&D 'cradle' for development of breakthrough products. • An application-oriented focus on knowledge generation will: <ul style="list-style-type: none"> • attract investment from large industries and governments, making R&D projects commercially viable; and • help scale R&D across priority sectors for India and Israel to support creation of business and development solutions.
Co-create differentiated B2B and B2C products driven by deep tech	<ul style="list-style-type: none"> • Indian and Israeli start-ups and businesses will achieve long-term competitive advantage by: <ul style="list-style-type: none"> • transcending disparate markets; and • creating new digital industries. For instance, smart mining • Providing services to support tech-driven products will help Indian and Israeli businesses command premium prices in global markets.

STRATEGY	EXPECTED BENEFITS
Catalyze exponential B2B and B2C outcomes	<ul style="list-style-type: none"> • With quality of customer experience becoming the new business currency, focusing on outcomes (not outputs) will make start-ups in India and Israel more relevant to global markets and transnational corporations. <ul style="list-style-type: none"> • For instance, United States based Proteus Digital Health has shifted its focus to outcomes. The company integrates a tiny, inert sensor in the pills it produces; the sensor acts in concert with a wearable device and mobile app to provide full “adherence transparency” for patients, healthcare providers, and payers.^{xxvii} • The need to create high-quality customer experiences in different contexts will drive development of ‘contextual products’. For instance, drip irrigation solutions which are tailored for a particular crop and region. Servicing these products throughout their lifecycle will generate opportunities for Indian and Israeli software and tech talent to build scalable apps and service platforms together.

EXECUTING THE STRATEGIES

To execute the above three strategies aimed at realizing Vision 25/25, ecosystem players in India and Israel (governments, industry, academia) will need to act on several fronts. We recommend the following steps:

Develop deep-tech R&D corridors across India and Israel

Achieving Vision 25/25 in the next eight years will require dedicated resources and frictionless collaboration across Indian and Israeli businesses and public-sector agencies. As a first step, the governments of both countries must support creation of what we call deep-tech R&D corridors – chains of connected deep-tech parks supporting innovation in sectors that India and Israel consider high priority. Such parks will host initiatives where start-ups, large companies and academic institutions can come together to explore fundamental and applications research in deep-tech areas relevant to the identified sectors. Entities based in such parks will have access to state-of-the-art communication technologies, IT and research infrastructure and an R&D and innovation hotline powered by connected cloud platforms. This high-bandwidth infrastructure will be accessible around the clock, allowing for near-real-time knowledge exchange, virtual experimentation, prototyping and testing.

To help develop such corridors, the Indian and Israeli governments can draw on best practices seen in existing initiatives such

as India's Global Innovation & Technology Alliance (GITA) and the India-Israel Initiative for Industrial R&D (i4rd) that is being implemented jointly by the government agencies of Israel and India. Meanwhile, large businesses should take the lead in introducing programs encouraging co-creation of differentiated products at the deep-tech parks. Consider Coca-Cola's 'The Bridge.' This unique commercialization program for start-ups supports development of differentiated products by connecting entrepreneurs with major global markets such as the US and Europe.^{xxviii}

State governments in India and regional agencies in Israel, can also help, by sharing in the costs entailed in building such parks. The result could be affordable and scalable solutions to developmental challenges in the areas of healthcare and education. The governments of Karnataka (India) and Israel are already carrying out joint industrial R&D projects under the Karnataka (India) – Israel Program for Industrial R&D (KIRD) by funding business entities and forging partnerships with them to carry out industrial R&D projects. Such initiatives can now be expanded to include deep tech.

Establish an Indo-Israel exchange program for students and innovators

Government agencies in India and Israel, in collaboration with start-ups and academics, must institutionalize the smooth exchange of students and innovators across both nations. Interactions between young people (age 19-40) from both nations (for example, collaborations on R&D projects) can help them build an early understanding of each other's work styles, which could inspire additional collaboration.

To facilitate such exchange, both nations can grant 10-year multiple entry visas to innovators of start-ups driving collaborative research. India can also consider issuing innovation visas as Israel does.^{xxx} Specific desks can be created within consulates and embassies of both nations to facilitate such exchange programs. India and Israel can also learn much about how to support such exchanges from the German-Israel Start-up Exchange Program (GISEP), which enables entrepreneurs from these two countries to access each other's local ecosystem for collaborative ideation and knowledge exchange.^{xxxi} Both countries should also look at improving connectivity by introducing more direct flights to promote greater student and innovator exchange.

Drive mutual awareness and trust

Accelerators and incubators from India and Israel need to establish a presence on one another's soil and demonstrate their intention to invest in start-ups based in the other nation aimed at creating differentiated B2B and B2C outcomes. For instance, in 2016, T-Hub, a technology incubator from India, partnered with Tel Aviv University's entrepreneurship center,

StarTAU, to encourage cross-country collaboration among start-ups in the health tech, agritech and data science spaces.^{xxxii}

Large corporations in India and Israel must also play a role—by hosting deep-tech-focused hackathons to promote development of innovative products and solutions for high-priority sectors. Meanwhile, trade associations and chambers of commerce in India and Israel can help, too. For instance, they can:

- Drive awareness in various universities and tier-1 and tier-2 cities and towns across India and Israel on existing collaboration initiatives across the two nations.
- Foster awareness of Indo-Israeli collaborative innovation in key cities and universities in the US and EU that have high numbers of Indians and Israelis.
- Showcase successful collaboration efforts.

Define the right procurement policies

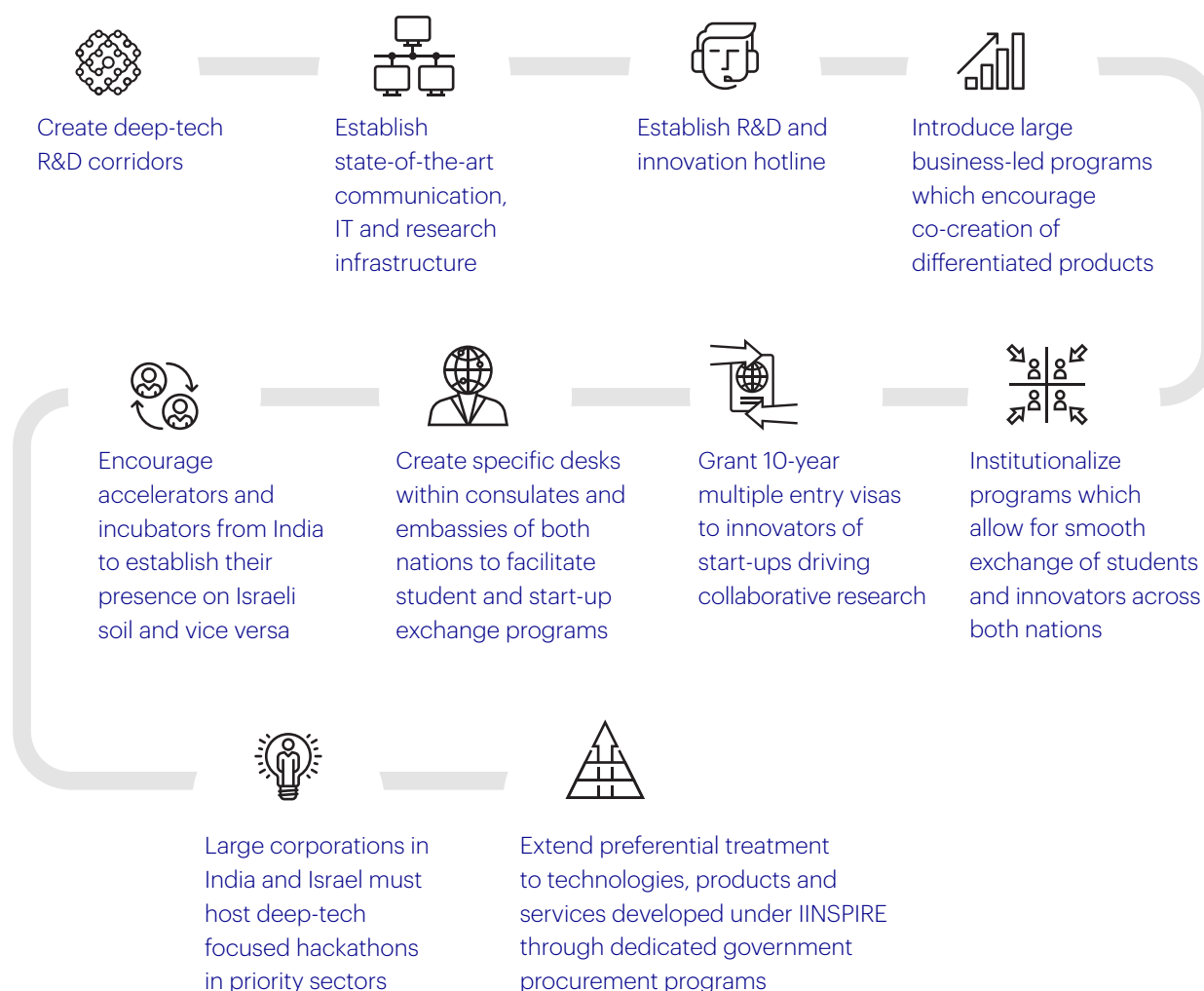
Instead of providing tax breaks, government procurement programs in India and Israel can extend preferential treatment to technologies, products and services developed through initiatives under the auspices of IINSPIRE. Other countries have taken similar steps. For instance, between 2006 and 2011, the Chinese government introduced policies to encourage procurement from companies that owned intellectual property in China, possessed registered trademarks in China or owned a license to use intellectual property in China—all with the goal of fostering domestic innovation.^{xxxiii}

THE WAY FORWARD

The IINSPIRE framework lays a strong foundation for innovation ecosystems in India and Israel to combine their complementary strengths to drive growth.

Going forward, stakeholders in such ecosystems must develop a roadmap for reaching key IINSPIRE-milestones. (See Figure 14.) Only then will they be able to transform collaborative innovation into a vehicle for driving Indo-Israel prosperity.

Figure 14: India and Israel must create a roadmap for attaining key IINSPIRE milestones



CASE STUDY 1: RELIANCE INDUSTRIES LTD. (INDIA)

ABOUT THE COMPANY

Reliance Industries Ltd (RIL) is India's largest private sector company with a consolidated turnover of US\$50.9 billion and net profit of US\$4.6 billion for the year ended March 31, 2017. Its global businesses span across hydrocarbon exploration and production, petroleum refining and marketing, petrochemicals, retail and 4G digital services.

RIL'S COLLABORATION WITH ISRAELI START-UPS

For over two decades, RIL has leveraged the technology prowess of Israeli companies for meeting its internal needs in diverse domains such as desalination plants, drip-irrigation, security, retail and telecom.

Airspan, recognized as a pioneer in LTE Access and Backhaul solutions, is an example of an Israeli company focused on India and having significant engagements with RIL for driving co-innovation. It has successfully deployed thousands of small-cells within Reliance Jio's LTE network - the world's largest all-IP wireless broadband network - carrying more than 350 TB of data and terminating more than five million VoLTE calls daily as of February 2017.

"Airspan thrives on invention and disrupting outdated traditional equipment manufacturers. The accomplishments with Jio make us very proud and we are grateful for the trust and cooperation that has been extended by the phenomenal Jio team."

Eric Stonestrom, CEO Airspan.

“We are driving a digital platform and broadband network movement to meet the expectations of a data hungry nation. By leveraging a Smart HetNet model supported and orchestrated by a cloud centric SON framework, Jio and Airspan have completely changed the traditional macro-centric deployment models and enabled Jio to proactively and rapidly address data demand through targeted deployments. Together, we have been able to innovate on products and solutions that have fundamentally disrupted cost and service models, ensuring that Jio’s self-healing HetNet will be able to seamlessly transition to 5G.”

Mathew Oommen, President, Reliance Jio
and Director, Airspan.

Another startup that is focused on India is mPrest - a Rafael subsidiary and a portfolio company of OurCrowd - that provides mission-critical monitoring and control solutions for defense, security, utility and industrial Internet of Things (IoT) sectors. Jio has engaged mPrest to deliver its game-changing technology for its security and loss prevention team.

“We are amazed by the flexibility of the mPrest platform to leverage its algorithms that direct the Iron-Dome missile defense system to enhance effectiveness of security and emergency operations for critical infrastructure by delivering real-time situational awareness and management capabilities.”

Rajan Luthra, Head-Special Projects,
Reliance Industries Ltd.

CHALLENGES	SUCCESS STRATEGIES
<p>Making India and RIL attractive to Israeli start-ups.</p> <p>India and Indian companies continue to run only third or fourth in the list of preferred choices for innovation-collaboration by deep-tech Israeli start-ups. The reason? Many such start-ups still believe that their innovative technologies cannot be directly applied to large parts of Indian manufacturing or to numerous Indian product and service offerings.</p>	<p>Deepening relationships with Israel Innovation ecosystem.</p> <p>RIL has deepened its relationship with the Israel innovation ecosystem beyond the typical business engagements. It believes there is immense potential in leveraging Israeli innovation for the Indian market needs.</p> <p>The startup division of the Israel Innovation Authority runs a program designed for startups based on innovative technological concepts. The incubators are managed by seasoned and experienced groups who are selected through a tough competitive process for a license period of eight years.</p> <p>RIL has recently won the bid for Jerusalem Innovation Incubator, in partnership with OurCrowd (Israel-based leading startup crowdfunding platform), Motorola Solutions (global provider of mission-critical communication solutions and services) and Yissum (technology transfer company of Hebrew University of Jerusalem – recently ranked as the #1 university in Israel). RIL is the only Indian company to be a part of this world-famous innovation program administered by the Ministry of Economy, Israel.</p> <p>The Incubator will proactively engage with Israeli startups working on “frontier technologies”, including big data, analytics, artificial intelligence, fintech, storage, internet of things, and computer vision.</p>

Expected impacts of RIL initiatives

Through this unique initiative, RIL is keen to provide selected Israeli technology startups in the incubator that are focused on delivering next-gen digital services, an opportunity to unlock the market potential in India. The company believes the incredible technological innovation from Israel will gain immensely by addressing the huge Indian market riding on the nationwide 4G LTE digital infrastructure

setup in India by Jio. The Jerusalem Innovation Incubator is expected to lay out a path for these efforts to be more structured and fruitful for all stakeholders.

This will also be a significant win-win for both India and Israel – deeply connecting the innovation ecosystems of the two nations and strengthening the foundation of the Indo-Israel Innovation partnership.

CASE STUDY 2: RIVULIS IRRIGATION (ISRAEL)

ABOUT THE COMPANY

Headquartered in Israel, Rivulis Irrigation offers a full line of irrigation products, including drip lines, drip tapes, filters, hose and tubing, sprinklers, sprays and valves. The company sells water-management solutions in more than 30 countries and has distribution partners in 100-plus nations. It also has 15 manufacturing locations and controls a large share of the US, Mexico, Australia, South American and European markets.

In 2014, Rivulis opened a subsidiary in India. After a set-up phase lasting nearly two years, the company is finally making significant inroads in the Indian market.

RIVULIS' IMPACT IN INDIA

In many ways, Rivulis is setting a new standard for the irrigation market in India—no easy feat in a market dominated by local manufacturers. To build its presence in India, the company has combined “audacious tenacity” with product differentiation and innovation. With its strong Indian partner and all-Indian workforce (including its managing director and every factory operator), it is rapidly gaining traction in a huge, diverse and challenging market.

RIVULIS' INDIAN JOURNEY

CHALLENGES	SUCCESS STRATEGIES
<p>Defining the right way to enter a huge and diverse market.</p> <p>The Indian agricultural market has 47 languages in widespread use and more than 200 million farmers who own small tracts of land. While the market presents a huge opportunity, its size and diversity also bring enormous regulatory and cultural challenges. For example, Rivulis has had to determine how best to manage the different market-entry regulations defined in each Indian state and organize its operations to support tens of thousands of transactions every month.</p>	<p>Moving quickly on multiple fronts and forging a vital strategic partnership.</p> <p>In short order, Rivulis India opened its headquarters office in Pune, Maharashtra, and started operating in 12 states simultaneously – all while running its factory in Vadodara, Gujarat. In early 2016, it formed a strategic partnership with a leading Indian business house. This business house has three directors on the Rivulis India board and helps the board with critical processes such as business planning, talent recruitment, marketing and bank financing. The partnership has strengthened the board's hands-on experience and supports the company's market-penetration efforts.</p>
<p>Finding value-creation opportunities in a highly complex market.</p> <p>India's agricultural market has an unusually complex set of stakeholders. To enter this market, Rivulis had to determine how best to compete with large Indian manufacturers and work with dealers who have longstanding relationships with local manufactures of drip-irrigation products. It also had to figure out how to navigate entrenched local water-management practices and work with farmers and local administrators who have varied levels of education.</p>	<p>Building high-quality offerings while defining an innovative value proposition.</p> <p>Rivulis has built a strong reputation based on the quality of its products and its ability to provide and support complete irrigation solutions. Rivulis also understood very early on that drip irrigation in India would win wider acceptance if farmers could receive ongoing, reliable, affordable and customized recommendations for optimizing their drip-irrigation installations. The company realized that sensors would not be all that helpful because of their low penetration in India. It therefore decided to strengthen its position in the Indian micro-irrigation market by providing software-based, value-added innovation and full-cycle irrigation solutions. Competitors in India had not yet explored this segment. In the words of Rivulis CEO Richard Klapholz, "We want to provide sensor-free, site-specific dynamic recommendations."^{xxxiv}</p>

CASE STUDY 3: NANOREP (ISRAEL)

ABOUT THE COMPANY

Founded in 2009, Nanorep provides self-service, virtual assistants and smart-bot solutions for customer service and e-commerce. The company uses sophisticated AI capabilities combined with patented natural language processing (NLP) technology to create ready-to-use, easy-to-deploy solutions that make self-service engaging and intuitive and that support a conversational experience.

NANOREP'S IMPACT IN INDIA

Nanorep's Indian customers have pushed the level of customer service in India even higher, by providing a seamless customer experience regardless of time or touchpoint. Nanorep's collaboration with customers who are renowned for embracing innovation has given these companies a competitive edge in digital self-service.

NANOREP'S INDIAN JOURNEY

CHALLENGES	SUCCESS STRATEGIES
<p>Proving uniqueness and worth.</p> <p>Indian companies have an impressive ability to create effective programs for addressing business problems. Given existing players' creativity and hands-on approach, Nanorep faced a major challenge in proving that its offerings were unique and helped create real value. The situation was even more daunting for Nanorep, because many Indian companies have the technical capabilities required to create specific solutions to quickly and inexpensively fix issues in-house.</p>	<p>Understanding clients' perspectives and preferences.</p> <p>Nanorep understood why Indian businesses tend to keep their solution-development efforts in-house. It then worked to help these companies appreciate the benefits of investing in comprehensive solutions to address needs across all their customer touchpoints more effectively and efficiently.</p> <p>Through references from prominent customers and personalized demonstration highlighting the ease-of-use and effectiveness of its solution, Nanorep showcased how well its robust solution supported intelligent self-service. Clients saw the short - and long-term improvements that Nanorep's solution would help them make—improvements that they could not achieve through their in-house programs.</p>
<p>Synchronizing product development.</p> <p>Nanorep needed to create an attainable work plan for meeting the advanced business requirements of leading Indian companies. Despite Nanorep's efforts many such companies were not sharing their strategies and plans on applying technological advances to modernize their workplace and customer operations.</p>	<p>Partnering with customers and strengthening R&D.</p> <p>Nanorep leveraged the strength of Indian businesses at innovating and adopting new services, to its advantage. Nanorep partnered with such customers who were keen to adopt the latest technologies such as AI to strengthen different aspects of their businesses with an eye toward enhancing their customer service. This strategy helped Nanorep expand into India. Nanorep also built up its R&D team and has continued to grow and develop its staff to keep improving its product capabilities and tailoring its offerings to its Indian customers.</p>

CASE STUDY 4: CYIENT (INDIA)

ABOUT THE COMPANY

Founded in 1991, Cyient provides engineering design, manufacturing, networks and operations services for companies in sectors such as aerospace, defense, mining and medical technology. With operations in 48 locations around the globe, the company generated revenues totaling US\$538 million in FY2017.

The company's major move relative to the Israel market came with its acquisition of Mysore, India-based Rangsons Electronics in 2014-2015.^{xxxv} The goal was to expand into electronics system design and manufacturing services, in line with the company's "S3" (services, systems and solutions) strategy. For its clients in Israel, Cyient wanted to manufacture and sell assemblies for applications such as missiles, radar and industrial applications. Rangsons Electronics' world-class production facilities, along with its service capabilities for design to production and end-of-life support, was a key driver behind the decision to acquire Rangsons, which today is known as Cyient DLM.

CYIENT'S IMPACT IN ISRAEL

Starting with two large customers in the defense space, Cyient has steadily increased its market base. To further support its expansion plans, the company is making moves such as the following:

Start-up funding:

Cyient is investing in Israeli funds that support accelerators and incubators program and that have an overarching interest in engineering and IoT start-ups.

Partnerships:

The company has collaborated with a subsidiary of Micronet Enertec Technologies, Inc. to jointly bid on India-Israel aerospace and defense contracts that are part of any required offset pursuant to Defense Procurement Procedures (DPPs). As mandated by the inter-governmental trade agreement and DPPs between the two nations, any Indian purchase of foreign military equipment over a certain amount necessitates an offset procurement of 30% of its value by the Israeli government.^{xxxvi}

CYIENT'S ISRAELI JOURNEY

CHALLENGES	SUCCESS STRATEGIES
<p>Understanding Israeli business and culture.</p> <p>Cyient DLM had limited knowledge of Israel's competitive landscape and little understanding of the cultural differences between Israeli and Indian business.</p>	<p>Understanding existing clients' preferences and strengthening those relationships.</p> <p>Cyient DLM developed strong relationships with existing clients, going a step beyond merely to provide excellent solutions and services. Executives were well aware that forging personal connections with existing clients was crucial to strengthening those relationships. But they also knew they had to understand the Israeli market and manage any concerns that clients might have about doing business with Cyient DLM. For instance, Israeli companies tend to be very particular about protecting their intellectual property rights, so Cyient DLM took steps to assure them of such protection. Thanks to Cyient's efforts to nurture these relationships, existing clients served as a strong reference for prospective new clients in the defense market. As a result, Cyient DLM was able to expand its footprint and grow its clientele in that market.</p> <p>Posting Indian sales and relationship manager in Israel for a certain period of time, followed by hiring local nations.</p> <p>Cyient DLM understood that to effectively manage the Israel business, understanding local culture and modus operandi was crucial. Knowing this, it localized Indian employees in Israel, to consolidate their position and establish a strong market foothold.</p> <p>Couple of years later, in 2016, Cyient announced the incorporation of its subsidiary in Israel, Cyient India Israel Limited.^{xxxvii} It then hired local nationals to take care of business relations. Since the senior leaders were already well versed with the ways of working in Israel, it became easier for them to collaborate with local employees.</p>

ABOUT THE RESEARCH

In May and June 2017, we connected with 57 key players spanning the innovation ecosystems of India and Israel with the help of a structured questionnaire having a combination of multiple choice and free response questions. The data collected from these responses was analyzed using standard statistical methods to generate bar and pie charts as well as a word cloud.

INDIA	ISRAEL
<ol style="list-style-type: none"> 1. Abhishek Prasad, Head Investments, GenNext Ventures, Reliance Industries Ltd. 2. Ajay Acharya, AGM Business Development, Cyient 3. Ajay Nanavati, Retired MD 3M Israel & 3M India 4. Amey Mashelkar, Mentor-in-Residence, GenNext Ventures, Reliance Industries Ltd. 5. Anshoo Gaur, Co-founder, Praveega 6. Atit Danak, Director of Partnerships, LetsVenture 7. Avaneesh Dubey, Founder & CEO, Qsome Technologies 8. Bala Girisaballa, CEO, Microsoft Accelerator India 9. Bhaskaran Srinivasan, Business Zenz & Manipal Global Academy 10. Chinnu Senthilkumar, Partner & CTO, Exfinity Ventures 11. Dr. Arvind Tilak, CEO, Ascent Intellimation Pvt. Ltd 	<ol style="list-style-type: none"> 1. Adi Gelvan, CRO, Spotinst 2. Amir Gutman, Managing Partner, Aviv Venture Capital 3. Anya Eldan, VP, Startup Division, Israel Innovation Authority 4. Barak Rabinowitz, Managing Partner, F2 Capital 5. Bibi Rosenbach, ex-CEO, Kryon Systems 6. Dr. Moses Shai, Consul for Trade & Economic Affairs, Consul General's Office of Israel in India 7. Dr. Uri Weinhebe, Managing Partner & CEO, Time Investment Group 8. Elad Itzkovitch, Head of Business Development at A&G Partners 9. Gabby Menachem, Founder & CEO, Loom Systems 10. Gadi Tirosh, Managing Partner, Jerusalem Venture Partners

INDIA	ISRAEL
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REFERENCES

- ⁱ “Overview of India-Israel Bilateral Trade and Economic Relations”, Ministry of Economy and Industry, Foreign Trade Administration, Government of Israel. Accessed on June 3, 2017 and viewable at: <http://itrade.gov.il/india/israel-india/>
- ⁱⁱ Ministry of Commerce and Industry, Government of India. Accessed on May 24, 2017 and viewable at: <http://commerce.nic.in/eidb/default.asp>
- ⁱⁱⁱ For more on Jugaad, please refer to: “Jugaad Innovation: Think Frugal, Be Flexible, Generate Breakthrough Growth” Navi Rajdou, Jaideep Prabhu and Simone Ahuja (2012).
- ^{iv} “Introducing GST-Ready Financial Suite for Indian Businesses”, Zoho Blog (April 19, 2017). Accessed on June 10, 2017 and viewable at: <https://www.zoho.com/financeplus/blog/introducing-gst-ready-financial-suite-for-indian-businesses.html>
- ^v “Razorpay Co-Founder Harshil Mathur on Funding, Accelerators, Fending off ‘Me Too’ Startups, and More”, Inc 42 Magazine (December 13, 2016). Accessed on June 10, 2017 and viewable at: <https://inc42.com/startups/interviews/razorpay-fintech-harshil/>
- ^{vi} For more on Chutzpah, please refer to: “Start-up nation: The story of Israel’s economic miracle”, Dan Senor and Saul Singer (2011).
- ^{vii} “This \$1 Trillion Industry is Finally Going Digital”, MIT Technology Review (October 24, 2016). Accessed on June 10, 2017 and viewable at: https://www.technologyreview.com/s/602596/this-1-trillion-industry-is-finally-going-digital/?utm_campaign=socialflow&utm_source=site&utm_medium=post
- ^{viii} “With 1,000 native apps developed, Pune-based Plobal Apps looks to leverage the ‘on-demand app’ economy”, Yourstory (February 3, 2016). Accessed on June 11, 2017 and viewable at: <https://yourstory.com/2016/02/plobal-apps/>
- ^{ix} For more on Freshdesk, please visit: <https://freshdesk.com/>
- ^x “Rakuten Acquires Viber for \$900 million”, Business Wire (February 14, 2014). Accessed on May 24, 2017 and viewable at: http://www.businesswire.com/news/home/20140213006561/en/Rakuten-Acquires-Viber-900-million#.Uv4AG0J_vLE
- ^{xi} For more on Similar Web, please refer to: <https://www.similarweb.com/>
- ^{xii} “Global Developer Population and Demographic Study 2016”, Evans Data Corporation. Accessed on May 27, 2017 and viewable at: <https://evansdata.com/reports/viewRelease.php?reportID=9>
- ^{xiii} “How Israel is leading the world in R&D investment”, Financial Times (February 8, 2017). Accessed on May 26, 2017 and viewable at: <https://www.ft.com/content/546af0b2-ede5-11e6-930f-061b01e23655>
- ^{xiv} “Israeli USB stick inventor bets on TV, medical devices”, Reuters (December 26, 2013). Accessed on May 26, 2017 and viewable at: <http://in.reuters.com/article/moran-israel-technology-idINDEE9BP04N20131226>
- ^{xv} For more on Mobileye, please visit: <https://www.mobileye.com/about/>
- ^{xvi} “Israel’s high-tech exports down 7% in 2016”, Globes (January 12, 2017). Accessed on May 26, 2017 and viewable at: <http://www.globes.co.il/en/article-high-tech-exports-down-7-in-2016-1001171799>
- ^{xvii} “Immigrants and Billion Dollar Startups”, National Foundation for American Policy (March, 2016). Accessed on June 21, 2017 and downloadable at: <http://nfap.com/wp-content/uploads/2016/03/Immigrants-and-Billion-Dollar-Startups.NFAP-Policy-Brief.March-2016.pdf>
- ^{xviii} “Israel to set up more centres of excellence in agriculture, horticulture”, The Hindu Business Line (February 23, 2017). Accessed on May 31, 2017 and viewable at: <http://www.thehindubusinessline.com/economy/agri-business/israel-to-set-up-more-centres-of-excellence-in-agriculture-horticulture/article9557338.ece>
- ^{xix} “The Indo-Israeli Agriculture Project”, MASHAV. Accessed on May 31, 2017 and downloadable at: http://mfa.gov.il/MFA/mashav/Publications/Subject_Publications/Documents/Indo-Israeli%20Agricultural%20Project.pdf
- ^{xx} “Indian, Israeli innovators come together to boost affordable tech solutions in Indian healthcare”, Yourstory.in (July 28, 2016). Accessed on May 24, 2017 and viewable at: <https://yourstory.com/2016/07/med4dev-hackathon/>

xxi “Micronet Enertec and India’s Cyient Team Up to capture the Multi-Billion Dollar Aerospace and Defense Off-Set Procurement Opportunity”, PRNewswire (April 13, 2017). Accessed on June 16, 2017 and viewable at: <http://www.prnewswire.com/news-releases/micronet-enertec-and-indias-cyient-team-up-to-capture-the-multi-billion-dollar-aerospace-and-defense-off-set-procurement-opportunity-300439303.html>

xxii “Microsoft, Tata set up group to invest in Israeli IoT”, Times of Israel (November 10, 2016). Accessed on June 12, 2017 and viewable at: <http://www.timesofisrael.com/microsoft-tata-set-up-group-to-invest-in-israeli-iot/>

xxiii “Gartner Says 8.4 Billion Connected “Things” Will Be in Use in 2017, Up 31 Percent From 2016”, Gartner (February 7, 2017). Accessed on June 22, 2017 and viewable at: <http://www.gartner.com/newsroom/id/3598917>

xxiv “Worldwide Revenue for Security Technology Forecast to Surpass \$100 Billion in 2020, According to the New IDC Worldwide Semiannual Security Spending Guide”, IDC (October 12, 2016). Accessed on June 22, 2017 and viewable at: <http://www.idc.com/getdoc.jsp?containerId=prUS41851116>

xxv “Worldwide Cognitive Systems and Artificial Intelligence Revenues Forecast to Surge Past \$47 Billion in 2020, According to New IDC Spending Guide”, IDC (October 26, 2015). Accessed on June 22, 2017 and viewable at: <http://www.idc.com/getdoc.jsp?containerId=prUS41878616>

xxvi “Smart Agriculture Market by Agriculture Type (Precision Farming, Livestock Monitoring, Fish Farming, Smart Greenhouse), Hardware (GPS, Drones, Sensors, RFID, LED Grow Lights), Software, Services, Application, and Geography - Global Forecast to 2022”, PRNewswire (March 27, 2017). Accessed on June 22, 2017 and viewable at: <http://www.prnewswire.com/news-releases/smart-agriculture-market-by-agriculture-type-precision-farming-livestock-monitoring-fish-farming-smart-greenhouse-hardware-gps-drones-sensors-rfid-led-grow-lights-software-services-application-and-geography---globa-300430053.html>

xxvii “Digital Business Era: Stretch your Boundaries”, Accenture (2015). Accessed on June 20, 2017 and downloadable at: <https://www.accenture.com/us-en/acnmedia/Accenture/Conversion-Assets/Microsites/Documents15/Accenture-Technology-Vision-2015-Outcome-Economy.pdf>

xxviii For more on The Bridge, please visit: <http://thebridgebycocacola.com/>

xxix For more on KIRD, please visit: <http://www.kscst.org.in/kird.html>

xxx For more on the Innovation Visa, please visit: <http://innovation-visa.org.il/en/>

xxxi For more on GISEP, please visit: <http://gisep.co/exchange/>

xxxii “After the T-Hub success, Hyderabad will soon have T-Works and VLSID academy”, Yourstory (June 9, 2016). Accessed on June 12, 2017 and viewable at: <https://yourstory.com/2016/06/t-hub-hyderabad-t-works-vlsid-academy/>

xxxiii “Public Procurement in China: overview”, Thomson Reuters Practical Law. Accessed on June 17, 2017 and viewable at: https://uk.practicallaw.thomsonreuters.com/4-521-9911?_lrTS=20170501054946614&transitionType=Default&contextData=sc.Default&firstPage=true&bhcp=1

xxxiv “Indian News Site Features Rivulis Irrigation CEO Speaking at Event in India”, Rivulis (2016). Accessed on June 12, 2017 and viewable at: <http://rivulis.com/2016/12/14/indian-news-site-features-rivulis-irrigation-ceo-speaking-event-india/>

xxxv “Cyient to acquire majority stake in Rangsons electronics strengthens end-to-end capabilities in integrated engineering, design and production”, Cyient (January 2, 2015). Accessed on June 20, 2017 and viewable at: <http://www.cyient.com/press/cyient-to-acquire-majority-stake-in-rangsons-electronics-strengthens-end-to-end-capabilities-in-integrated-engineering-design-and-production/>

xxxvi “Micronet Enertec and India’s Cyient Team Up to capture the Multi-Billion Dollar Aerospace and Defense Off-Set Procurement Opportunity”, PRNewswire (April 13, 2017). Accessed on June 20, 2017 and viewable at: <http://www.prnewswire.com/news-releases/micronet-enertec-and-indias-cyient-team-up-to-capture-the-multi-billion-dollar-aerospace-and-defense-off-set-procurement-opportunity-300439303.html>

xxxvii “Cyient announces incorporation of subsidiary in Israel”, Business Standard (July 22, 2016). Accessed on June 20, 2017 and viewable at: http://www.business-standard.com/article/news-cm/cyient-announces-incorporation-of-subsiary-in-israel-116072201067_1.html

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