The 9th India Israel Forum

22–23 DECEMBER 2016 | MUMBAI, INDIA

A Report

ananta aspen centre

TEL AVIV UNIVERSITY אוניברסיטת תל אביב

CII Confederation of Indian Industry

1.

Executive Summary

The ninth annual meeting of the India Israel Forum was held on 22 – 23 December 2016 in Mumbai. For the first time the meeting was held outside New Delhi in order to expand outreach and bring stakeholders from the financial hub and nearby regions. The meeting represented both continuity and renewal. The gathering included experts and stakeholders who have been here since the very beginning and at the same time, added new members this year, and introduced a new issue area for discussion – Water Technologies.

The delegates gathered against the backdrop of warming bilateral relations. The historical state visit by President Pranab Mukherjee in 2015 was followed up by a very successful visit by President Reuven Rivlin to India in November 2016. The trajectory of formal relations is clear and ascendant. As the two countries enter 25 years of diplomatic relations, the India-Israel equation is strong, certain and Indians and Israelis are increasingly meaningfully engaging with one another.

In this backdrop, the Forum reflected on past success, consider current challenges and collaborate to overcome future obstacles.

The 9th meeting continued with deliberations on the key areas of cooperation – *bilateral economic ties; defence cooperation* which has really been the bedrock of our engagement and *technology cooperation* that remains a key building block of the relationship. India has developed a very exciting technology space with the current government deeply committed to encouraging innovation in this realm. Concurrently, the Israeli ecosystem has continued to thrive and mature.

The government's flagship programs – 'Make in India'; 'Skill India', "Digital India" and 'Start Up India' – all have immense potential to provide impetus to existing partnership between the countries and engender new areas of cooperation. It is now an opportunity for the business leaders to capitalise on this opportunity. With this vision, the Forum discussed ways to leverage innovation opportunities and harness Internet of Things to develop mutually beneficial model that would not only sustain but also thrive in the coming years.

The Forum has emerged as a platform to capitaliseon the realities of the growing India – Israel collaboration created by the rapidly increasing interactions in business, economy, trade, defence and security and other critical domains. The Forum serves as a catalyst to identify and build new areas of cooperation while devising ways to remove the current roadblocks impeding the stronger realisation of each other's potential.

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Key Recommendations

2.1
A Bilateral Water Agenda: Using Policy and Technology to Ensure Water Security

1) India and Israel experience similar water challenges, which require a mixed set of interventions both on supply side (creating new water resources/expanding existing water resources) and on the demand side (improving water use efficiency, wastewater recycling, sewage treatment, reuse and recycle).

2) A balanced and integrated approach backed by scientific planning and use of decision support tools needs to be adopted. CII's WATSCAN Tool, is one such integrated tool that can be applied across geographies for water resource planning and management. Aspects such as siting, sizing and scaling that are integral to water management can be handled well with application of WATSCAN Tool.

3) Israeli capabilities can be customised to Indian needs for water resource management. Pricing models, technological options and its customization to India can help in addressing some of the challenges. Technologies related to desalination and efficient membranes are important areas where partnership between the two countries can be strengthened.

4) Continuous improvements in Israel's water sector has been achieved through innovations in technologies, a robust road map to achieve long-term plans. Israel over the years, has been working towards water security with a high percentage of sewage purification, water reuse, efficient water use and desalination. This has been possible through continuous innovations in planning, policies and tariffs. These aspects are crucial for India as well, where many parts face similar challenges in terms of climate change, droughts, high water loss, changing land use, rising fresh water demands and water pollution.

5) Policy plays a key role in addressing water challenges. The relevance of an intelligent policy that considers advanced technology and public participation has been the key to the success of Israel in transforming it from a 'desert' into a water surplus area. A similar policy intervention in India is important for managing the existing issues faced by India.

6) Israel has undertaken various programs through PPP models, with major thrust on promoting new and innovative technology. This combined with high public awareness through campaigns has successfully instilled a sense of resource conservation amongst the citizens. A similar integrated approach to water management in India needs to be considered.

7) There is a strong linkage between Water and Energy especially in case of power plants and steel that are major consumers of water. By focusing on these industrial sectors that are largest water consumers

could be the first step in contributing more to the challenges of water in the industrial sector.

8) Metering is an essential measure to deal with the issue of Non-revenue water i.e. water that is lost due to leaks or non-billable water. This is gaining recognition with Smart Cities Initiative of the Government of India, where the endeavour is to provide water 24X7. Smart Solutions from Israel in this regard could be explored as models where there was less water wastage, since it was the key towards Israel's successful strategy for dealing with water shortage for years.

9) There are several water and wastewater opportunities in India – smart cities, recycle/reuse opportunities, sewage treatment by industries, Clean Ganga Mission etc. These need to be capitalised appropriately through technology, policy and awareness.

10) Demand side management strategies in agriculture sector are important given 80% of water is used by the sector. Trials related to micro irrigation that have been successful in Israel for different types of crops and in rain fed areas could be taken up particularly in similar geographies. Focus should also be on using the Centres of Excellence that have been set up in India to further the above.

11) Innovative technologies and new strategies remain important for addressing challenges in the water sector. In this context, commercializing models, introducing pilots for showcasing success through linking with open minded utilities and early adaptors of industry for feasibility and proof of concept can be taken up. R&D fund recently established, can play a significant role in advancing the above.

12) Academia can play a major role to foster better understanding of water technologies. The focus should be to develop a framework for joint research and training program and create a hub for knowledge transfer.

CII-Triveni Water Institute, CII's Center of Excellence on Water and the Water Research Center, and Tel Aviv University, Israel, entered into Memorandum of Understanding at the Forum. The MoU signed by Mr Chandrajit Banerjee, Director General, CII, and Prof Joseph Klafter, President, Tel Aviv University, seeks to enhance cooperation of the two countries on planning, designing, and implementing new and innovative tools and technologies that improve management of water in India. It identifies opportunities and geographical areas where WRC-TAU and CII-TWI will pool expertise and derive workable, scalable solutions in the water sector in India, for the benefit of the community at large. This includes technology, management, policy reforms and advance tools and techniques.

It covers various sectors namely, irrigation, industry, domestic water use, wastewater management, municipal sewage recycle, improving water use efficiency, training and capacity building, and most

importantly implementing of strategies in drought prone areas of India. CII-Triveni Water Institute and Water Research Center, TAU together will work towards improving the water scenario across several states and regions of India.

The MoU opens doors to new state-of-the-art techniques and technologies that will be customized and implemented. Combination of Intelligent Policy, Advanced Technology, and Stakeholder Participation will enable a desired change in the sector.

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2.2 Session 1

Deepening Economic Cooperation: *Towards a Complementarity Model for Shared Prosperity and Free Trade*

SESSION CHAIRS

AHARON FOGEL & SUDHIR MEHTA

PRESENTERS

- ISRAEL MAKOV
- TOMER TZUR
- HUGO CHAUFAN
- K R S JAMWAL
- NIKHIL SAWHNEY
- SALIL SINGHAL

1) There must be greater inter-connectivity between India and Israel in terms of transportation. There are only limited flights available. Cost-effective ways of travel is essential in order to facilitate people-to-people exchange.

2) A specialized 'start-up visa' (as created by Israel for Chinese investors) should be considered for India.

3) Free trade agreement is one of the most basic rules of the game to enhance motivation to trade goods between two countries. Trump's foreign policies appear to place great importance upon bi-lateral relationships, and this might present an opportune moment to cement a trading framework for the India-Israel relationship.

4) Most Israeli technologies are built with western market in mind; therefore price points for India are likely to differ for the Indian market.

5) There is a need to accelerate Indian R&D in the

automotive, agriculture, life sciences and electronics in collaboration with Israeli R&D centres.

6) Israel should consider establishing India-centric centres that will incentivize scholars to visit India, study its market and understand the challenges that are specific to the Indian environment. This can serve as a viable method of increasing Israeli entrepreneurship ventures dedicated to India.

7) It is recommended that to identify potential areas where the cost of adaptation of Israeli technology to Indian landscape and environment is low.

8) There is a need for "Training the Trainers". In order to achieve efficient skill development it is essential that there is an exchange of people. This exchange of people will also enable increased awareness of opportunities and dynamics of how local markets operate in these countries.

9) The risk of private capital has to be mitigated. There is a need for some collateral involvement by the government in this regard.

10) There is a huge scope for the application of Israeli technologies in the agricultural sector in India. The focus of the same should be on identifying how digitization can help small farmers to get the best of their resources. Similarly, Israeli Irrigation techniques and technologies pertaining to Water Security also hold a lot of promise in the Indian context.

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2.3 Session 2

Converging Security Interests: *Advancing Defence Partnership*

SESSION CHAIRS

Isaac Ben Israel & Jamshyd Godrej

PRESENTERS

- **Ophir Shoham**
- **Jonathan Kolber**
- **Pramit Pal Chaudhuri**
- **Baba Kalyani**
- **Mukesh Bhargava**
- **Joseph Weiss**

1) Proper IP agreements and strict security measures are all that matter for Israelis even when it comes to technology transfers. It was suggested that the Israeli defence industry find partners other than the Defence Public Sector Units (DPSU's). To find some more partners except the traditional DPSU's will broaden the area of opportunity.

2) The Make in India initiative deals a lot with defence production by private sector in India. However, the process of acquisition of defence equipment became slower post the implementation of Make in India because the mid-level bureaucracy has not identified how to translate the new policy into action. In the new DPP there is a new category called the Make in India: IDDM (Indigenous Design Development and Manufacturing), now there are some criteria's which state that:
   - If the design is indigenous then 40% of the contents should be indigenous
   - If the design is not indigenous then 60% of the contents should be Indigenous.

There will be committees which will decide based on above criteria if the project is a Make in India project or not and it can be foreseen that this will make the process bureaucratic and difficult to implement. There is a need to streamline the defence acquisition regime and free it from bureaucratic fetters.

3) Israel should continue with the liberal attitude in terms of licensing and see how it can adapt to the changing policy sphere in India as fast as possible.

4) All initiatives to take forward steps in developing sensitive technology that only close partners like Israel and India can do must be taken under the G-to-G umbrella. Though the execution of the projects will be through company to company partnerships.

5) Timeline of doing business in India in the defence industry is extensive. The time between putting the operational requirements on the table to putting the first system in the field can be as long as 10-15 years. This often leads to loss of generation of technology and frustrates the businesses operating in the country. Though DPP calls for time limits but there is no enforcement agency that will see the execution of the projects on time. The establishment of such an agency is imperative.

6) Since 'Make in India' policy was introduced, the defence acquisition committee has approved more than $50 billion worth of programmes of the government to be done by 'Make in India'. However, to make this happen, some steps need to be taken. From 2000-2016, owing to several regulations and multiple level of approvals, only a fraction has been invested by the foreign countries in Indian defence sector. The government must understand that flexibility, openness and less rigidness is necessary to open the environment.

7) India has to change and look differently on the model of procurement especially the 'NCNC' requirement. After being involved in long process of negotiations and purchasing, there is 'no cost and no commitment' from the Indian government. As part of request for proposal and as a global competitor, one is required to demonstrate the system and it is only after the demonstration, once the organisation receives the L1 approval that the organisation is awarded the contract. However, even after complying with all the norms and the NCNC process, the Indian government has on several occasions, repudiated contracts on the ground that there was no longer requirement for the concerned equipment or the project.

8) As commercial companies are answerable to board of directors, it needs to consolidate its revenue and justify its expenses. There is a taxation issue, it is challenging to comprehend the complicated tax structure in India.

2.4 Session 3

Leveraging technology and innovation: *A roadmap for bilateral cooperation*

SESSION CHAIRS

Giora Yaron & Chandrajit Banerjee

PRESENTERS

- James Abraham
- Tomer Tzur
- Aaron Mankovski
- Parag Shah

1) **Importance of simplicity:** Price versus value cannot be an understated component when speaking of commercialization of technology in India. There is a ruthless adherence to value of a product in India. Can you take the current technology at hand-re-engineer it and make it 1/3rd of the cost? THAT is the price target that will work in India.

2) **Importance of Scale:** By scaling up operations one can strive to bring down price. For instance if scale up your volume by 30 times, you may bring down your price to 1/3rd of what is was before and if you can make money from this, then you have a business model that will work.

3) **Importance of speed:** India is still a country that can be categorised to be 'Under Construction'. We have a target to build around 500 cities in the next several years. Therefore, processes have to be fast. Usual businesses in infrastructure are based on price x volume- however, that is an inefficient way of looking at value creation. It's about price x volume ÷ time. AKA, how fast can you move volume that matters in terms of cost structure.

4) Deep learning and machine learning are two types of technology that are being pioneered in Israel. However, the hardware end to facilitate these technologies is being done by 3rd party companies. This fundamentally changes the cost structure—and India should make the most of this.

5) An important example for bilateral cooperation is the healthcare centre. For example, firms in Israel are simplifying and assisting radiologists by using big data analytics (compiled over years) to run potential diagnostics for patients.

6) Israeli companies must understand that there is a huge opportunity within Indian Markets. One needs to find the low-hanging fruits.

7) If India wants to double its manufacturing contribution to total GDP, it will fail and lose its momentum if they do it by a step-by-step approach. It could potentially take 20 years. They must do it much faster, in an extremely out of the box manner.

GOING FORWARD

1) *The secret is to adapt, not deploy.* The responsibility of 'adaptation' does not solely rest on the shoulders of Israeli companies, but instead should motivate Israeli companies to collaborate with Indian companies. Israelis should not hesitate

regarding IP Rights in India.

2) *Afford to Pay versus Afford to Invest:* India is a country that can afford to pay, but not afford to invest. Israeli companies should tap India's ability to pay, not the ability to invest.

3) *Focus on time, not just price:* Think about how fast technology can turn into revenue rather than what the absolute value and price point is. The ability of project management (through technology) to deliver quality at rapid speed is extremely important.

2.5 Session 4

The Internet of Things Revolution: *Opportunities and Security Threats*

SESSION CHAIRS

AARON MANKOVSKI & NIKHIL SAWHNEY

PRESENTERS

- GIORAYARON
- GOPICHAND KATRAGADDA
- DAVID MENDLOVIC
- ISAAC BEN ISRAEL
- RAJAN NAVANI
- SACHIN PILOT

RECOMMENDATIONS

The advent of Industry 4.0 (artificial intelligence, big data analytics, wearable technology, deep learning and machine learning) while definitely beneficial for society at large, also poses the following risks:

1) India's radical shift to digitization will make private records and accounts extremely vulnerable to cyber-attacks. As part of the digitization drive one must install protective mechanisms in systems before moving ahead with the digitization wave.

2) The shift to amassing large bulks of data and running big data analytics on it represents a paradigm shift in the way we view data. This shift must inculcate the ability to make decisions in real time.

3) Wearable technology must solve the conundrum of battery conservation while maintaining the efficiency of the product.

POTENTIAL OPPORTUNITIES

1) Sensor research development is a significant opportunity for Indo-Israel research collaboration.

2) The challenge of cyber-security actually presents an opportunity in itself—it will be interesting to see how the business models to combat nefarious activities online will play out.

3) Data localization is going to be an increasingly important issue—since all business models today centre around the possession and distribution of data.

4) There is potential scope for an India-US-Israel trilateral conversation to take place considering the mergers and acquisitions that have been completed in the past few years. For example, Waze (formerly FreeMap Israel) was acquired by Google and then after capital injections from the United States, it steered to India for collaboration.

5) E-Learning can be an extremely important medium to create awareness regarding the industrial and environmental needs of India for Israeli innovations.

2.6 Session 5

Emerging Political relations *(with a special focus on contemporary regional and global dynamics)*

SESSION CHAIRS

Hugo Chaufan & Arunabha Ghosh

PRESENTERS

- **Brandon Friedman**
- **Meirav Arlosoroff**
- **Pramit Pal Chaudhuri**
- **P R Kumaraswamy**

1) As we evolve our relationship, there is a danger if we limit it to technology, business and commerce etc. These have to grow as growth in these sectors emblemises better relations but to deepen our relationship we have to develop an understanding of the politics, history and culture of each other's countries.

2) With President Trump coming into power, US will define its interests narrowly in the region and Israel will have to adjust to this. In addition to maintaining its vital relationship with the US, Israel must prepare for US diplomatic retrenchment. This can be seen as an opportunity for India and Israel to expand and deepen their relationship.

3) The FTA between the two countries hasn't seen any progress. The Israeli side is demanding lower tariffs and the Indian side is demanding quotas for importing engineers. These are small problems that can be solved.

4) The Israeli Prime Minister is very fond of India,

however, the problems that exist in the India-Israel relationship are at the lower levels of the governmental machinery and the Prime Minister's support alone is insufficient. It is imperative that links are formed at lower levels in the government and in the civil society.

5) With Prime Minister Modi coming into office, Israel has seen a lot of affinity and friendship from India but not long ago things were not like this because India's foreign policy does not only look at bilateral relations with Israel but the larger middle east. Any approach towards Israel has to accommodate diverse pressures on the South Block. Put in simple words it is one Israel vs 22 Arab states and 2 Non-Arab - Iran and Turkey. Therefore, the path of diplomacy of the periphery must be chosen. In India's context the state's make up for the periphery. Their agenda is purely economic, focussed on business, development and investment. They can actually deal with Israel on a wide range of subjects of economic relevance without getting involved in international politics.

6) By focussing on the villages and non-political issues like clean technology, water management etc, Israeli's can build a support base in India. "You can boycott an Israeli movie or an Israeli writer but you cannot boycott the wheat growing in Punjab using Israeli irrigation systems". The grassroots support is ideological.

3.

List of Participants

1. **Stanley M. Bergman (Co-chair)**
   CEO and Chairman, Henry Schein

2. **AharonFogel (Co-chair)**
   Chairman, ZIM Integrated Shipping Services Limited

3. **Jamshyd Godrej (Co-chair)**
   Chairman of the Board, Godrej and Boyce Manufacturing Company Ltd

4. **James Abraham**
   Founder and Director, SolarArise

5. **David Akov**
   Consul General,
   Consulate General of Israel, Mumbai

6. **Meirav Arlosoroff**
   Senior Commentator and Editor, The Marker

7. **Chandrajit Banerjee**
   Director General of the Confederation of Indian Industry (CII)

8. **Isaac Ben Israel**
   Chairman of Israel Space Agency;
   Director of the Interdisciplinary Cyber Research Center (ICRC), Tel Aviv University

9. **Mukesh Bhargava**
   Head & Vice President, (Special Projects Underwater Platforms) Larsen & Toubro Ltd

10. **Daniel Carmon**
    Ambassador of Israel to India

11. **Hugo Chaufan**
    Chairman of the Board, Arad Group, Chairman of the Board, Metzerplas, Chairman, Investment Committee, Migdal Insurance

12. **Pramit Pal Chaudhuri**
    Distinguished Fellow and Head, Strategic Affairs at Ananta Aspen Centre & Foreign Editor, Hindustan Times

13. **Brandon Friedman**
    Researcher, Moshe Dayan Center,
    Tel Aviv University

14. **Arunabha Ghosh**
    CEO, Council on Energy,
    Environment and Water (CEEW)

15. **K R S Jamwal**
    Executive Director,
    Tata Industries

16. **Sameer Jindal**
    Managing Director, GCA Corporation

17. **Baba Kalyani**
    Chairman and MD, Bharat Forge Ltd

18. **Gopichand Katragadda**
    Group Chief Technology Officer at Tata Sons

19. **Sanjay Kirloskar**
Chairman and Managing Director of Kirloskar Brothers Limited

20. **Devang V Khakhar**
Director, Indian Institute of Technology, Bombay

21. **Joseph Klafter**
President, Tel Aviv University

22. **Jonathan Kolber**
General Partner, Viola Growth

23. **P R Kumaraswamy**
Professor, Centre for West Asian Studies, Jawaharlal Nehru University

24. **Israel Makov**
Chairman, Sun Pharma

25. **Aaron Mankovski**
Managing Partner, Pitango Ventures

26. **Sudhir Mehta**
Chairman & Managing Director, Pinnacle Industries

27. **David Mendlovic**
Head of the Industrial Affiliates Program, Tel Aviv University, CEO, Corephotonics

28. **Rajan Navani**
Vice Chairman & Managing Director, Jetline Group of Companies, India

29. **Yaron Oz**
Rector, Tel Aviv University

30. **Kiran Pasricha**
Executive Director and CEO, Ananta Aspen Centre

31. **Sachin Pilot**
Former Union Minister of Corporate Affairs and President, Rajasthan Pradesh Congress Committee

32. **Hadar Ron**
Managing Partner, Israel Health Care Ventures

33. **Nikhil Sawhney**
Managing Director, Triveni Turbine Limited and Director, Triveni Engineering and Industries Limited

34. **Parag Shah**
Managing Partner, Mahindra Partners

35. **Ophir Shoham**
Former Director, Directorate of Defense R & O, Ministry of Defense

36. **Ravi Singh**
Secretary General and CEO, World Wildlife Fund – India

37. **Salil Singhal**
    Chairman of PI Industries Ltd

38. **Amar Sinha**
    Secretary (ER) Ministry of External Affairs,
    Government of India

39. **Tomer Tzur**
    Managing Partner, BCG Tel Aviv

40. **Joseph Weiss**
    President and CEO, Israel Aircraft Industries

41. **Giora Yaron**
    Chairman of the Executive Council,
    Tel Aviv University

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A Bilateral Water Agenda: *Using Policy and Technology to Ensure Water Security*

Israel

1. **David Akov**
   Consul General, Israeli Consulate,
   Mumbai

2. **Daniel Carmon**
   Ambassador, Israeli Embassy, New Delhi

3. **Hugo Chaufan**
   Chairman of the Board, Arad Group,
   Chairman of the Board, Metzerplas,
   and Chairman, Investment Committee,
   Migdal Insurance

4. **Jonathan Kolber**
   General Partner, Viola Partners

5. **Ariel Kolitz**
   Elul Tamyrand, GOS Services

6. **Israel Makov**
   Chairman, Sun Pharma

7. **Hadas Mamane**
   Water Institute,
   Tel Aviv University

8. **David Mendlovic**
   Head of the Industrial Affiliates Program,
   Tel Aviv University, CEO, Corephotonics

9. **Amir Paster**
   TAU Water Institute

10. **Shmuel Schupak**
    CEO, Metzerplas

11. **Eli Tidhar**
    Leader, Consumer &Industrial Products and
    Leader, Asia Pacific Corridor, Deloitte Israel

India

1. **Rishi Kumar Bagla**
   Chairman and Managing Director,
   Bagla Group and (Vice Chair of CII
   Maharashtra State Council)

2. **Pinaki Bhadury**
   Business Head, Wipro Enterprises Ltd

3. **Prashant Deshpande**
   Managing Director, Expert Global,
   Solutions Pvt Ltd

4. **Arunabha Ghosh**
   CEO, Council on Energy, Environment & Water
   (CEEW)

5. **Umesh Joshi**
   Head Sustainability (Auto & Farm Sector)
   Mahindra & Mahindra Ltd.

6. **Ravi Mariwala**
   Scientific Precision Pvt. Ltd.

7. **Kapil Narula**
   Executive Director & CEO,
   CII-Triveni Water Institute

8. **K. Ashok Natarajan**
   Chief Executive Officer, Tamil Nadu Water
   Investment Company Ltd

9. **Prabhat Pani**
   Tata Water Mission

10. **Nikhil Sawhney**
    Managing Director,
    Triveni Turbine Limited and Director,
    Triveni Engineering and Industries Limited

11. **Ravi Singh**
    Secretary General and CEO,
    World Wildlife Fund (WWF) India

12. **Salil Singhal**
    Chairman of PI Industries Ltd

Delegates at the **9th India Israel Forum**

Co-Chairs (From L to R): **Mr. Jamshyd Godrej; Mr. Stanley Bergman & Mr. Aharon Fogel**

CII-Triveni Water Institute, CII's Center of Excellence on Water & the Water Research Center, Tel Aviv University, Israel, **Signing the MoU**

Mr. Uday Kotak, Executive Vice Chairman & Managing Director, Kotak Mahindra Bank with the **Co-Chairs** at the **Opening Dinner**

Participants at the **Defense Partnership Session** (From L to R): **Isaac Ben Israel; Baba Kalyani; Ophir Shoham; Israel Makov** & **K R S Jamwal**

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