Over the past few years, Israel has become a strong player in Industry 4.0 technologies. The sector is characterized by vibrant startup activity, increasing availability of capital, a supporting community and government incentives. All this has led to growing global attention from both investors and strategic players.

Government activities in 2019
The Ministry of Economy is setting up two institutions that will assist Israeli Industry 4.0: The Institute for Advanced Manufacturing, which will focus on robotics, digitization and IoT; and the Center for Resource Efficiency, which will focus on optimizing the production of energy, raw materials, water, etc. In addition, a new Industry 4.0 incubator is being established and will be operated by a consortium of Israeli manufacturers such as Keter Plastic, Trilidor, Klil, Flying Cargo, Kosto and Wipro.

THE ISRAEL INDUSTRY 4.0 ECOSYSTEM: SNAPSHOT AT THE END OF 2019

- **260 Companies**
- **104 Investors in 2019** including VCs, CVCs and angel investors (Israeli and foreign)
- **12 Hubs:** 8 accelerators and incubators, 3 entrepreneurship programs, 1 community
- **Multinationals:** 24 R&D Centers
- **Government:** Over $100M in support programs

**2019 HIGHLIGHTS**

- **Exits**
  - 4 exits, of which 2 were predictive maintenance companies.
- **Mega rounds ($100M+)**
  - First ever mega rounds in Israeli I4 – Fabric and Vayyar.
- **Most active investors in 2019**
  - Grove Ventures and Qualcomm Ventures invested in 3 companies each.
- **Government activities in 2019**
  - The Ministry of Economy is setting up two institutions that will assist Israeli Industry 4.0: The Institute for Advanced Manufacturing, which will focus on robotics, digitization and IoT; and the Center for Resource Efficiency, which will focus on optimizing the production of energy, raw materials, water, etc. In addition, a new Industry 4.0 incubator is being established and will be operated by a consortium of Israeli manufacturers such as Keter Plastic, Trilidor, Klil, Flying Cargo, Kosto and Wipro.
The amount of capital raised by the sector has increased consistently since 2014 along with the number of deals. 2019 may prove to be a milestone for this sector as total funding jumped to $650M from $413M in the previous year, a 57% increase (see Figure 2).

Financial investors (VCs, angels, private equity, crowdfunding) continue to be far more active than strategic investors (corporates and CVCs) – although both investor types have increased their investments (see Figure 4).

The number of investors participating in Industry 4.0 deals has more than doubled since 2014. This rise is predominantly led by foreign investors (see Figure 3).²

1 The number of companies and funding data in 2018-2019 are likely to rise, as data for these years are still being entered.

2 The number of investors in 2018-2019 is likely to rise, as funding data are still being entered.
ISRAELI INNOVATION: INDUSTRY 4.0

THERE ARE MORE THAN 250 INNOVATIVE INDUSTRY 4.0 STARTUP COMPANIES IN ISRAEL

INDUSTRY 4.0 CHALLENGES

INDUSTRY 4.0 TECHNOLOGIES

Sensing & Imaging

3D Printing

Robotics

Platforms & Connectivity

Start-Up Nation Central is an independent nonprofit that builds bridges to Israeli innovation. We connect business, government, and NGO leaders around the world to Israeli innovators and help them develop technological solutions with high-potential potential, and we accelerate knowledge and generate in-depth insights about Israel’s innovation sector.
SUBSECTORS
The Israeli Industry 4.0 sector consists of nine innovative subsectors that address the entire manufacturing process (see Figure 5 for definitions and Figure 6 for number of companies and capital raised):

**Figure 5: Subsector Definitions**

- **Operations Optimization**
  Solutions that increase yield, decrease the consumption of raw materials or electricity, and enable a faster time to market

- **Maintenance**
  Maintenance and predictive maintenance of production machinery to reduce downtime

- **Inspection & Testing**
  Plant inspection, and testing of materials and products

- **IoT Platforms & Connectivity**
  Communication and integration of data

- **Robotics**
  Advanced machinery for the automation of complex tasks

- **Supply Chain**
  Improvement of supply chain efficiency and visibility

- **Sensing & Imaging**
  Devices involved in data collection

- **Additive Manufacturing (3D Printing)**
  3D printers and the surrounding devices

- **Industrial Cybersecurity**
  The protection of collected data and connected systems

**Figure 6: Number of Active Companies and Capital Raised (Per Subsector)**

<table>
<thead>
<tr>
<th>Subsector</th>
<th>Number of Active Companies</th>
<th>Capital Raised $M (2019)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Operations Optimization</td>
<td>16</td>
<td>117</td>
</tr>
<tr>
<td>Industrial Cybersecurity</td>
<td>50</td>
<td>162</td>
</tr>
<tr>
<td>Platforms &amp; Connectivity</td>
<td>47</td>
<td>32</td>
</tr>
<tr>
<td>Supply Chain</td>
<td>25</td>
<td>117</td>
</tr>
<tr>
<td>Inspection &amp; Testing</td>
<td>21</td>
<td>37</td>
</tr>
<tr>
<td>Sensing &amp; Imaging</td>
<td>23</td>
<td>21</td>
</tr>
<tr>
<td>Additive Manufacturing (3D Printing)</td>
<td>29</td>
<td>23</td>
</tr>
<tr>
<td>Maintenance</td>
<td>20</td>
<td>20</td>
</tr>
<tr>
<td>Robotics</td>
<td>16</td>
<td>16</td>
</tr>
</tbody>
</table>

**About Start-Up Nation Central**
Start-Up Nation Central is an independent nonprofit that builds bridges to Israeli innovation. We connect business, government, and NGO leaders from around the world to Israeli innovation, through highly customized business engagements, and through Start-Up Nation Finder – a free, easy-to-use, up-to-date online platform for discovering and connecting with thousands of Israeli innovators. We identify technological sectors with high-growth potential and help them develop to maturity. We currently focus on the digital health, AgriFoodtech and Industry 4.0 sectors, exposing them to global audiences, helping them develop practical tools, attracting investors, and establishing and nurturing tech communities to increase collaboration, knowledge-sharing, and skill expansion. We accumulate knowledge and generate in-depth insights about Israel’s innovation sector, and share these findings with the public and partners.

**Start-Up Nation Central – your partner for Israeli innovation.**

For more information please contact Yuval Engelstein, Lead Analyst, Industry 4.0 & Smart Mobility
yuval.engelstein@sncentral.org

For more information on the Israeli Industry 4.0 sector and the companies cited in this report, please visit:
finder.startupnationcentral.org