ADVANCING TO INDUSTRY 4.0

GLOBAL INDUSTRIAL CHALLENGES

Cybersecurity Threats
Connecting production lines to the Internet generates **new vulnerabilities**, including cyberattacks, data theft, and espionage.

Source: Deloitte (2017)

Optimizing Data Use
The **massive amount of data** generated by industrial businesses has enormous potential for optimizing assets, **yet 99% of data is currently discarded.**

Source: Woodside Capital Partners (2017)

Increased Labor Costs
From 2010–2015, real wages in Central and Western Asia grew from **3.4% to 5.7%** annually. **As wages rise**, such industries as manufacturing **benefit financially far less** from traditional sources of low-cost human labor.

Source: McKinsey Global Institute (2012); International Labour Organization (2016)

GLOBAL INDUSTRY 4.0 TRENDS

Industrial corporates are slated to invest 5% of their annual revenue in digitization - a yearly sector-wide expenditure of **$907B** over the next five years.

Source: PwC (2016)

Applying advanced analytics to manufacturing processes can **increase production** volume by up to **25%** and **reduce downtime** by up to **45%.**

Source: Woodside Capital Partners (2017); McKinsey Digital (2015)

Collecting, analyzing, and sharing data enables **new business models**, such as subscription-based services, marketplace platforms, and data as a service.

Source: McKinsey Digital (2015)

Industry 4.0 technology offers a shift in the traditional paradigm of linear supply chain operations, enabling a streamlined and transparent process focusing on product and manufacturing needs.

Source: Deloitte (2016)

STRENGTHS OF ISRAELI INDUSTRY 4.0

Technological prowess
Israel brings unique value to the fields of AI, machine learning, predictive analytics and blockchain. These technological advantages facilitate industrial solutions that improve asset utilization, enhance cybersecurity, and optimize supply chain operations.

Wide Solution Range
The solutions offered by the Israeli ecosystem address needs across the entire value chain, enabling a broad range of use cases for each industrial vertical.

Industry Recognition
Leading global industrial corporations have already tapped into Israel's innovative capabilities, and key players across all industrial verticals are already part of the Israel's Industry 4.0 ecosystem.

Research Centers

Governmental
Ministry of Economy Advanced Manufacturing Initiative, Israeli Innovation Institute Innovation Labs

Academic
Technion, IBM Haifa Research Lab

Israeli Venture Capital firms

Grove Ventures, OurCrowd, Maverick Ventures, i3 Equity, Carmel Ventures

Foreign MNCs
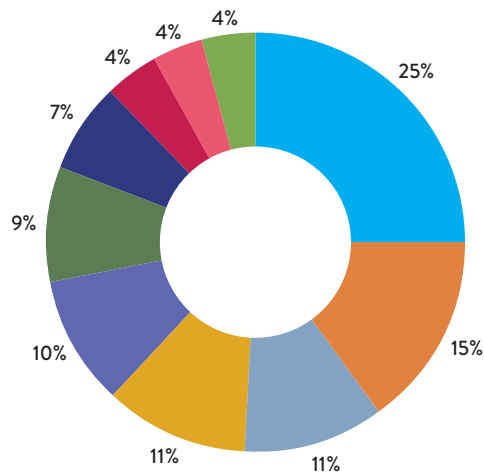**(acquired Israeli companies, established R&D in Israel)**

GE Digital, Siemens, 3D Systems, Autodesk, Nestle, Intel

Israeli MNCs

Strauss, Tnuva, Iscar, Teva, ICL, Adama

MAJOR COMPONENT TECHNOLOGIES OF ISRAELI INDUSTRY 4.0 INNOVATION

TOTAL NUMBER OF COMPANIES:

175

- Operations Optimization — 25%
- Cybersecurity — 15%
- Supply Chain — 11%
- Maintenance — 11%
- IoT Platform and Connectivity — 10%
- Sensing and Imaging — 9%
- Additive Manufacturing — 7%
- Robotics — 4%
- Safety — 4%
- Inspection and Testing — 4%

SUCCESS STORIES

CLAROTY

Claroty extracts critical information from real-time monitoring and distills it into actionable insights for securing and optimizing complex industrial control environments; has raised over $32M since its establishment in 2014.

vayyar

Vayyar has developed a 3D imaging sensor that penetrates through different materials, facilitating quality assurance and site safety, and identifying water leakage, among other applications; has raised $34M since its establishment in 2011.

PLATAINE®
people-smart automation

Plataine provides optimization software for manufacturers, leveraging IoT and artificial intelligence technologies; won the 2016 UK Innovation in Composite Manufacture Award; founded in 2008.

nurego.

Nurego monetizes industrial technology companies that are transitioning to a cloud-native environment; acquired by GE Digital in 2017.

Consumer Physics

Consumer Physics has developed a pocket-size molecular sensor that reads materials' chemical composition, in order to control product quality across the entire production line; has raised over $21M since its establishment in 2011.

START-UP NATION CENTRAL

START-UP NATION CENTRAL IS YOUR BRIDGE TO ISRAELI INNOVATION.

Contact Start-Up Nation Central to help you to access the Israeli Industry 4.0, and connect with the relevant start-ups and industry figures.
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