



OIDD-380

Operations Strategy Practicum

PennGlobal Program

Fall 2019

(Revised 08-16-19)

Locations: Scheduled sessions at Wharton in JMHH F-94, and during Winter Break in Israel.

Dates: Winter Break 2019 + Wharton Sessions (on selected Tuesdays at 3:00 pm in the semester)

Credit: 1.0 Credit Unit

Course Instructor

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Course Overview and Learning Goals

This course focuses on the management of operations at manufacturing and service facilities located in Israel that are used either by domestic corporations or by multinational companies. The emphasis is on the evolving patterns of operations strategies adopted by firms for producing products, sourcing manufacturing, distributing products, delivering services and managing product design, as well as on programs for enhancing quality, productivity and flexibility and managing technology. We will focus on the formulation and execution of such strategies for established Israeli multinationals with world class operations and innovative strategies as well as for start-ups and smaller companies that are scaling their global supply chain infrastructure to support growth. The course will consist of a set of site visits that will provide the opportunity to

observe company processes directly and in-class sessions which include lectures, case discussions and management speakers who will describe their companies' current strategy. The course is an undergraduate version of OIDD 680, "Operations Strategy Practicum" which has been offered for several years to MBA students participating in the Semester in San Francisco, who visit companies in the Bay area, Seattle, San Diego and Tijuana Mexico. The 680 course is also offered in the Philadelphia campus, with visits to companies in Germany, the Netherlands and the Philadelphia area.

The course has the following objectives:

- Provide students with an opportunity to interact with senior executives from the companies to be visited.
- Explore current thinking and state-of-the-art practices concerning global operations.
- Facilitate experiential learning by providing students with the opportunity to observe company operations in action, under the guidance of company management. These interactions will facilitate an exchange of ideas that identify managerial challenges and concerns. They will also highlight current practices and strategies of participating companies.
- Introduce various models and frameworks that have been developed in the economics, public policy, operations and management literatures for developing strategies for global supply chain sourcing, technology management, innovation and process improvement.
- Consider how technology developments are impacting current operations strategy (e.g. automation, Industry 4.0, machine learning, big data, E-commerce, Internet of Things).

The course also provides an opportunity for students to explore cultural and historical attractions available in Israel. Both Wharton and non-Wharton undergraduate students can participate.

The companies to be visited will cover a range of manufacturing and service industries where global sourcing, productivity and coordination are key issues.

The list of companies that we will visit include:

- Teva
- ISCAR
- Stratasys
- Payoneer
- Our Crowd
- SodaStream
- Applied Materials
- Strauss / Elite
- Netafim
- Innoviz

Course Organization and Requirements

The course will include an intense 10 day period of company visits in Israel during the winter break along with nine class sessions at Wharton. The class sessions to be held at Wharton will include lectures, case discussions, guest speakers and group presentations. Students will be

responsible for a fixed cost of approximately \$900. Any additional travel expenses (flight to Israel) and the cost for land arrangements in Israel will be covered by the PennGlobal program. Enrollment will be limited due to capacity restrictions imposed by the companies that we will be visiting and budget limitations at PennGlobal.

Pre-requisites

It is recommended that students taking this course should have completed OIDD 101 or an equivalent course that introduces basic concepts of operations management, supply chains and quantitative methods. Other OIDD and related courses or prior experience can also be used to satisfy the pre-requisite requirement (check with the instructor).

The course will be open to both Wharton and non-Wharton students.

Grading and assignments

Grades are based on (1) class participation, which includes class discussions, contribution to the group reports and attendance to the company visits (25%); (2) analysis of 2 assigned cases, which require individual, written reports; 2 other cases will be discussed, but a report for them is not required (25%); (3) a background report concerning one of the companies and its industry, that we will visit, and an after-site visit report for that company based on observations from the visit. (25%); These reports will be a group assignment; and (4) a final, individual paper offering reflections on what you observed and learned during the site visits (25%).

Interdisciplinary Center (IDC) participation

Students from the Arison School of Business at the IDC, Herzliya will accompany the class and participate in the company visits and evaluations. The Dean of the Arison School, Professor Dov Pekelman, will join us with the IDC students, for the Israel segment of the course.

Schedule
Fall Semester, 2019

The following schedule is subject to change.

Session	Date	Topic and Readings
1	<p style="text-align: center;">Tuesday 8/27</p> <p style="text-align: center;">3:00 pm – 4:20:pm</p>	<p>Course Introduction – Operations Strategy</p> <p>This session will present the goals and requirements for the course. We will then review the course schedule. Finally, we will introduce a framework for operations strategy that highlights the following concepts that will be covered in the course either in class sessions or through company visits:</p> <ul style="list-style-type: none"> ○ Global Manufacturing Sourcing ○ Supplier Relationships and Coordination ○ Logistics and Distribution ○ Technology and Capacity Planning ○ Supply Chain Risk Management ○ Agility, Flexibility Strategies ○ Environment and Sustainability ○ Lean operations and continuous improvement <p>Readings</p> <ul style="list-style-type: none"> ● M. Fisher, “What is the Right Supply Chain for Your Products”, Harvard Business Review, 1997. ● H. Lee, “Triple A Supply Chain”, Harvard Business Review, 2004.
2	<p style="text-align: center;">Tuesday 9/10</p> <p style="text-align: center;">3:00 pm – 4:20:pm</p>	<p>Boeing: The Fight for Fasteners Case Discussion</p> <p>We will discuss challenges associated with sourcing and supplier coordination encountered by Boeing in its 787 supply chain. Our focus will be on the procurement process and their interaction with suppliers of fasteners used in the assembly of the airplane. We will also consider lessons to be learned from the customer - supplier relationship that was used by Boeing for fasteners.</p> <p>Readings</p> <ul style="list-style-type: none"> ● M. Lee and R. Anupindi, “Boeing: The Fight for Fasteners”, by (U. of Michigan case 1-428-787, 2009) ● C. S. Tang, and J. Zimmerman, “Mitigating New Product Development Risks – The Case of the Boeing 787 Dreamliner”, Chapter 11 in M.S. Sodhi and C.S. Tang. <i>Managing Supply Chain Risk</i>. Springer. 2012

<p>3</p>	<p>Tuesday 9/24</p> <p>3:00 pm – 4:20:pm</p>	<p>Global Supply Chain Strategy – Sourcing and Location Decisions</p> <p>We will review the current situation concerning global manufacturing sourcing, including the results of a recent Benchmark study.</p> <p>Readings</p> <ul style="list-style-type: none"> • W. C. Shih “What It Takes to Re-Shore Manufacturing Successfully”, , Sloan Management Review, Fall, 2014. • “Shifts in Cost Competitiveness Reshape Global Manufacturing”, Sourcing Journal, September 05, 2014. • “Yen’s Shifting Value Helps Japanese Carmakers Meet New Challenges”, Knowledge@Wharton, April 01, 2014. • M. A. Cohen, S. Cui, R. Ernst, A. Huchzermeier, P. Kouvelis, H. L. Lee, H. Matsuo, Marc Steuber, A. Tsay “OM Forum -- Benchmarking Global Production Sourcing Decisions: Where and Why Firms Offshore and Reshore, MSOM, 2018.
<p>4</p>	<p>Tuesday 10/08</p> <p>3:00 pm – 4:20:pm</p>	<p>Teva Pharmaceutical Case Discussion</p> <p>This session will introduce the global operations of Teva, the largest corporation in Israel. We will discuss how Teva emerged as a major player in the global pharmaceutical industry. When in Israel, we will visit a company manufacturing facility and a new global distribution center. We will also hear an update on developments since the time of the case and continue the discussion with the IDC group and Professor Pekelman in Israel.</p> <p>Consider the following questions for our class discussion.</p> <ol style="list-style-type: none"> 1. How did Teva succeed in Israel? Why did such a company emerge in Israel? How did Teva set itself apart from its competitors in Israel? 2. Comment on the design and operation of Teva’s global manufacturing network and supply chain. What are its strengths and weaknesses? 3. As the CEO of Teva, which markets would you concentrate on developing going forward? 4. How should “big pharma,” compete with Teva? 5. Recently Teva has experienced significant business challenges. What are the major risks it faces currently? <p>Readings</p> <ul style="list-style-type: none"> • T. Khanna, K. Plepu and C. Madras, “Teva Pharmeceuticals, Ltd., HBS Case # 9-707-441, March 2010. • J. Friedrich, A. Noam and E. Ofek, “Right Up the Middle: How Israeli Firms Go Global”, HBR, May 29014.

<p>5</p>	<p>Tuesday 10/29</p> <p>3:00 pm – 4:20:pm</p>	<p>Logistics and Distribution</p> <p>In this session we will discuss the management of distribution and logistics within a global supply chain. We will focus on issues associated with risk pooling, coordination and technology. We also will present insights derived from analytical models and current practices for materials management, cross-docking, and warehouse automation.</p> <p>Reading</p> <ul style="list-style-type: none"> • G. Cachon and C. Terwiesch, “Risk-Pooling Strategies to Reduce and Hedge Uncertainty”, Chapter 15 “Matching Supply with Demand: An Introduction to Operations Management”, 3rd edition, McGraw Hill
<p>6</p>	<p>Tuesday 11/05</p> <p>3:00 pm – 4:20:pm</p>	<p>Supply Chain Strategy – Netafim Case Discussion & Industry 4.0</p> <p>Netafim Case Discussion: In the first part of this session we will consider the supply chain of Netafim, the world’s leading provider of drip irrigation systems. We will discuss the product technology, Netafim’s global supply chain footprint and its evolution from a products to a service firm. When in Israel, we will visit the company and hear an update on developments since the time of the case. During our visit, we will learn more about the company’s implementation of advanced technology to support its operations, i.e. Industry 4.0</p> <p>Consider the following questions as you prepare for our class discussion.</p> <ol style="list-style-type: none"> 1. How should the company deliver expanded services to complement its products? In particular what services should be offered and what capabilities are required? 2. How is performance for this product measured? Is there a role for “performance-based contracts” for Netafim? Where and how should they be used? 3. Comment on the operational (manufacturing, logistics, supply chain) initiatives described in the case. How could they be improved? 4. How does the company address the interests of multi-stakeholders (Netafim, farmers, government, World Bank, etc.)? 5. What are the major competitive challenges facing the company at the time of the case? What are the current challenges facing the company today? 6. How will the development of new crop management technology (i.e. based on the internet of things abd Industry 4.0) impact the company? <p>Reading</p> <p>G. Michlin, H. Lee, “Netafim: Migrating From Products to Solutions”, Stanford GSB case GS-46, 02//17/06.</p>

		<p>Technology Developments – Industry 4.0 and Beyond</p> <p>The second part of this session will introduce the Industry 4.0 framework which is driving many companies to re-design their supply chains and re-define the underlying business model to support their competitive strategy. We will review current developments and discuss the key building blocks, motivation and impact areas of this technology. We will also review several company examples.</p> <p>Reading TBD – Industry 4.0 readings</p>
7	<p>Tuesday 11/12</p> <p>3:00 pm – 4:20:pm</p>	<p>Supply Chain Risk Management – Cisco Case Discussion</p> <p>This session will introduce the concept of supply chain risk management. We will do so by discussing the case which describes the Cisco process and how it reacted to the Tohoku earthquake in Japan. We will review the presentation of James Steele, who was director of Cisco’s Supply Chain Risk Management program at the time of the quake, who has provided an update on Cisco’s response.</p> <p>Readings</p> <ul style="list-style-type: none"> • R. Anupindi, “Cisco Supply Chain Risk Management (SCRM) in Action: 2011 Tohoku Earthquake”, (U. Michigan Case 1-429-284, 2013) • R. Anupindi, “Supply Chain Risk Management at Cisco: Response to H1N1 (U. of Michigan case 1-428-881), – <u>read pages 2 through top of page 9.</u> • D. Simchi-Levi , W. Schmidt and Y. Wei, “From Super Storms to Factory Fires: Unpredictable Supply-Chain Disruptions”, HBR Jan-Feb, 2014. • D. Reynolds, “Lessons From Tohoku”, Wharton Magazine, Winter 2012. • A. Pollack and S. Lohr, "A Japanese Plant Struggles to Produce a Critical Auto Part", New York Times, April 278, 2011. • K@W-Wipro, “Process Resilience is Becoming a Business Imperative”, K@W, April 2014.
8	<p>Tuesday 11/19</p> <p>3:00 pm – 4:20:pm</p>	<p>Guest Speaker: Amir Goldman, Managing Director & Managing Partner, Susquehanna Growth Equity, LLC</p> <p>Mr. Goldman will discuss his company’s strategy for investing in a wide range of start ups in Israel.</p> <p>Check out the best-seller “Start-Up Nation” that describes the Israeli experience in creating successful companies. Many of the companies that we will be visiting are discussed in the book.</p> <p>Reading</p> <ul style="list-style-type: none"> • D. Senor and S. Singer, <u>Start-Up Nation</u>, Twelve, 2011.

9	Tuesday 12/03 3:00 pm – 4:20:pm	Trip Preparation Guest Speakers: Ramon Jones and Laurie Jensen Ramon and Laurie will discuss the logistics and organization of our trip. They will also answer any questions you may have pertaining to trip preparation and travel.
10	Tuesday December 31 (or earlier)	Arrival in Israel 9.00 pm: Opening Orientation Session
11	Wednesday January 1 (am) Herzlya	Joint Sessions with IDC We will spend the morning at the IDC campus. The schedule includes the following: <ol style="list-style-type: none"> 1) Plant Tours - This session also will introduce the Plant Tour Analysis tool that will be applied in our site visits by the student teams. 2) Preparation time for industry/company pre-tour reports. Topics that could be included in this report include: current competitive trends, technology developments affecting both the product and processes, the regulatory environment, etc. Each group should have coordinated before this meeting, through remote conference calls, on how they want to work together to prepare the pre-visit report. 3) Industry/company background reports presentations by joint Wharton/IDC teams. 4) Teva Case Discussion (Professor Pekelman) Reading R. E. Goodson, “Read a Plant – Fast”, HBR, May 2002.
12	Wednesday January 1 (pm) Tel Aviv	Visit to Innoviz
13	Thursday January 2 (am) Tel Aviv	Visit to Applied Materials
14	Thursday January 2 (pm) Rahat	Visit to Sodastream
--	Friday, Saturday January 3, 4	Culture and Historical site touring

15	Sunday January 5 (am) Tefen	Visit to Iscar
16	Sunday January 5 (pm) Karmiel	Visit to Strauss
17	Monday January 6 (pm) Jerusalem	Visit to Ourcrowd and tour of historical and religious sites
18	Tuesday January 7 Tel Aviv	Visit to Teva factory Visit to Teva Distribution Center
19	Wednesday January 8 (am) Tel Aviv	Visit to Payoneer
20	Wednesday January 8 (pm) Tel Aviv	Visit to Stratasys
21	Thursday January 9 (am) Kibbutz Magal	Visit to Netafim
22	Thursday January 9 (pm) Herzlya	Joint Session with IDC Prepare and present company reports. These reports will be based on each group's plant tour evaluations and other insights generated through the company visit.
--	Thursday January 9 (pm) Tel Aviv	Closing Dinner and Debrief
--	Friday January 10, 2019 (or later)	Depart for Philadelphia

Case Assignments (Individual assignments - 25% of your overall grade)
(Submit 2 reports and prepare 2 for discussion)

This is an individual assignment. Be prepared to discuss each case in class. You are required to submit a report for the Boeing and Cisco cases. Each report will be a 750 word paper (*plus or minus 5%; double-spaced; put word count and your name at the top*) that addresses the specific questions for each case assignment. The Netafim and Teva cases will be discussed in an initial class and then both companies will be visited and discussed during the class visit to Israel

Case Assignment – Boeing (report required)

Boeing encountered an unusual supply chain problem during its 787 Dreamliner product development and manufacturing process, related to a small and unlikely source of difficulty, namely shortages and delays in the supply of fasteners needed to hold the airframe together. Read the case, **Boeing: The Fight for Fasteners**, by Moses Lee and Ravi Anupindi (Tauber Institute, U. of Michigan case 1-428-787, 2009) and prepare a 750 word paper (*plus or minus 5%; double-spaced; put word count and your name at the top*) that addresses the following questions:

1. *What were the causes of the fastener crisis at Boeing? How was the problem ignored for so long? What effect did the 787 Dreamliner project have on fastener supply?*
2. *What are the key elements of the Fastener Procurement Model (FPM)?*
3. *Describe the material, information, and financial flows between Boeing, fastener manufacturers (suppliers) and Tier-1 partners under FPM.*
4. *Evaluate FPM from the perspective of Boeing, fastener manufacturers, Tier-1 partners, and other stakeholders.*
5. *Critique the approach taken by Boeing in implementing FPM. What problems has Boeing encountered in rolling out the FPM?*
6. *What are some of the costs, benefits and risks associated with a “customer managed inventory” strategy such as FPM.*

You should also read the article by Chris Tang, and Josh Zimmerman, **Mitigating New Product Development Risks – The Case of the Boeing 787 Dreamliner**, Chapter 11 in M.S. Sodhi and C.S. Tang. *Managing Supply Chain Risk*. Springer. 2012, as you prepare your answers to the case.

Read the case and think about the assignment questions. We will discuss this case in class on **Sept. 10**. Your paper, which includes answers to all 6 questions, is due on **Sept. 17**, posted on Canvas.

Case Assignment – Teva – (discussion, no report required)

Teva is the largest corporation in Israel and is a major player in the global pharmaceutical industry and the largest corporation in Israel.

1. *How did Teva succeed in Israel? Why did such a company emerge in Israel? How did Teva set itself apart from its competitors in Israel?*

2. *Comment on the design and operation of Teva's global manufacturing network and supply chain. What are its strengths and weaknesses?*
3. *As the CEO of Teva, which markets would you concentrate on developing going forward?*
4. *As an executive in "big pharma," what approach would you take to deal with Teva?*
5. *Recently Teva has experienced significant business challenges. What are the major risks it faces currently?*

We will discuss the case in class on **Oct. 08** and again, in Israel on **Jan. 01** at a joint session with IDC, led by Professor Pekelman.

Readings

- T. Khanna, K. Plepu and C. Madras, "Teva Pharmaceuticals, Ltd., HBS Case # 9-707-441, March 2010.
- J. Friedrich, A. Noam and E. Ofek, "Right Up the Middle: How Israeli Firms Go Global", HBR, May 29014.

Case Assignment – Netafim- (discussion, no report required)

This case describes the history, operations and supply chain strategies of Netafim, the world's leading provider of drip irrigation systems. We will discuss the product technology, Netafim's global supply chain footprint and its evolution from a products to a service firm.

1. *How should the company deliver expanded services to complement its products? In particular what services should be offered and what capabilities are required?*
2. *How is performance for this product measured? Is there a role for "performance-based contracts" for Netafim? Where and how should they be used?*
3. *Comment on the operational (manufacturing, logistics, supply chain) initiatives described in the case. How could they be improved?*
4. *How does the company address the interests of multi-stakeholders (Netafim, farmers, government, World Bank, etc.)?*
5. *What are the major competitive challenges facing the company at the time of the case? What are the current challenges facing the company today?*
6. *How will the development of new crop management technology (i.e. based on the internet of things) impact the company?*

We will discuss the case in class on **Nov. 5** and again, in Israel, when we visit the company on **Jan. 09**.

Reading

- G. Michlin, H. Lee, "Netafim: Migrating From Products to Solutions", Stanford GSB case GS-46, 02/17/06.

Case Assignment – Cisco (report required)

On March 11, 2011 a major earthquake struck Tohoku Japan. It had a devastating impact on global supply chains. Read the case, **Cisco SCRM in Action: 2011 Tohoku Earthquake**, by Ravi Anupindi (Tauber Institute, U. of Michigan case 1-429-284, 2013) and also read **Supply Chain Risk Management at Cisco: Response to H1N1** (U. of Michigan case 1-428-881), – read pages 2 through top of page 9 for a description of Cisco’s approach to risk management. Prepare a 750 word paper (*plus or minus 5%; double-spaced; put word count and your name at the top*) that addresses the following questions:

1. *What are the major challenges facing Cisco as result of supply chain disruptions caused by the earthquake?*
2. *How should Cisco manage the crisis?*
3. *What metrics should be used by Cisco to support Supply Chain Risk Management? What data would you need to estimate these metrics? At what organizational level (plant, product, supply chain, business unit) would it be appropriate to apply these metrics? What may be typical uses of these metrics?*
4. *How should Cisco mitigate the impact of the disruption to their supply chain? What tradeoffs and risks should they consider and how are these related to the metrics? In particular, how can the TTR metric be used to develop a mitigation strategy?*
5. *Comment on Cisco’s SCRM process and how they dealt with the Tohoku crisis. What are its major strengths? Do you see any weaknesses?*

You should also read the following articles (posted on Canvas) as you prepare your answers to the case:

1. D. Reynolds, “Lessons From Tohoku”, Wharton Magazine, January 26th, 2012,
2. D. Simchi Levi, “From Super Storms to Factory Fires: Managing Unpredictable Supply-Chain Disruptions”, Harvard Business Review, Jan-Feb 2014.
3. A. Pollack and S. Lohr, "A Japanese Plant Struggles to Produce a Critical Auto Part", New York Times, April 2, 2011.
4. K@W-Wipro, “Process Resilience is Becoming a Business Imperative”, K@W, April 2014.

Read the case and think about the assignment questions. We will discuss this case in class on **Nov. 12**. James Steele, who was director of Cisco’s SCRM program at the time of the quake, has provided us with a report on how Cisco’s SCRM system actually operated during the crisis. We will review his comments in our discussion of the case. Your paper is due on **Nov. 19**, posted on Canvas.

Industry Background and Site Visit Report (Team assignment - 25% of your overall grade)

Each team will be assigned to a company that we will be visiting during the semester. Prior to the visit, the team will prepare and present a report that provides background information

concerning their assigned industry and company. Topics that could be included in this report include: current competitive trends, technology developments affecting both the product and processes, the regulatory environment, etc. The team will then use the plant tour assessment tool (i.e. “Read a Plant Fast” by Goodson) to prepare a report based on the visit. The reports will be shared with the full class after the visits. Group formations and preferences are due on **Sept 10**. Please submit your group membership (3 members) and your first two choices for the background and post-visit reports. Choose from the following list:

- * Innoviz
- * Applied Material
- * ISCAR
- * Stratasys
- * Sodastream
- * Payoneer

Each group will be paired with an IDC group. The combined group will work to prepare the initial pre-visit presentation and the final post-visit report. Groups should coordinate on how they want to work together to prepare the pre-visit report **before** we meet for the first time in Israel. Group conference calls can be used for this purpose.

Each team will present their industry /company background report to the class in our pre-tour session at the IDC campus on **January 1**.

Post visit reports will be presented in Israel on **January 9**. These will be joint Penn/IDC group presentations.

Final reflection paper (Individual assignment - 25% of your overall grade)

This individual assignment is an opportunity to reflect on what you have learned in the course and through the site visits. It is worth 25% of your grade and is due on **TBD**, posted on Canvas. You should give your thoughts on 1) the current status, 2) future trends and 3) key drivers of operations strategy and sourcing decisions in the industries we visited. Our guideline for length is 750 words, roughly three pages, although this is a recommended, but not required, length; your paper can be either shorter or longer, as long as it captures your thoughtful reflections on your experience in the course.

Background Reading List:

1. D. Senor and S. Singer, Start-Up Nation: The Story of Israel’s Economic Miracle, 2009
2. S. Siegel, Let There Be Water: Israel’s Solution for a Water-Starved World, 2015

The Start-Up Nation book is available from Amazon for a modest price (around \$5). It is a great background for our course and for several of our visits.

Company Profiles

Innoviz:



Innoviz is a leading provider of cutting-edge LiDAR remote sensing solutions to enable the mass commercialization of autonomous vehicles. The company's LiDAR products deliver superior performance at the cost and size required for mass market adoption. Available now, InnovizPro™ offers unrivaled angular resolution at the highest frame rate of any LiDAR solution currently on the market. The company's automotive-grade LiDAR offering a comprehensive mass-market solution, InnovizOne™, will be available in 2019. Headquartered in Israel, the company was founded in January 2016 by former members of the elite technological unit of the Israeli Defense Forces with renowned expertise in the fields of electro-optics, computer vision, MEMS design and signal processing. Innoviz is backed by strategic partners and top-tier investors including Aptiv (Delphi Automotive), Magna International, Samsung Catalyst, SoftBank Ventures Korea, 360 Capital Partners, Glory Ventures, Naver and others.

Applied Materials:



Applied Materials is the leader in manufacturing equipment that provides materials engineering solutions used to produce virtually every new chip and advanced display in the world. Their expertise in modifying materials at atomic levels and on an industrial scale enables their customers to transform possibilities into reality. Their products include: Semiconductor, Display, Solar, Roll-to-Roll WEB Coating and Automation.

SodaStream:



SodaStream each year provides 1.5 billion liters of home-made soda to millions of homes worldwide, making it one of the largest beverage companies in the world. Their system enables customers to carbonate water, add flavor and enjoy quality, better-for-you soda at home. They are the world's largest manufacturer, distributor and marketer of home carbonation systems with machines being sold in over 60,000 retail stores, in 45 countries worldwide.

- Employ over 2,000 people worldwide
- More than 30 nationalities are represented in the company
- Headquarters located in Israel
- Manufacturing facilities in: Australia, China, Germany, Israel and South Africa
- SodaStream strictly adheres to the highest international standards in quality, design and production

ISCAR:



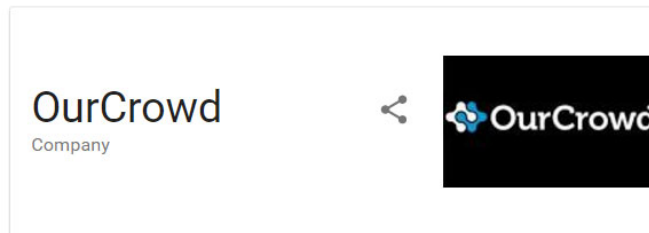
ISCAR is the largest of the 15 companies comprising the IMC (International Metalworking Companies). Together, they supply a dynamic comprehensive line of precision carbide metalworking tools. These companies produce a wide range of carbide inserts, carbide endmills and cutting tools, covering most metal cutting applications. IMC also provides engineering and manufacturing solutions to major industries throughout the world. Many innovative products, designed especially for customer requirements, have made the IMC a world leader in the major manufacturing industries such as automotive, aerospace and die & mold production.

Strauss:



Strauss Group Ltd. formerly known as Strauss-Elite, is the largest food products manufacturer in Israel. It is the shared trademark of two companies – Strauss and Elite, that merged in 2004. Strauss is the largest Food & Beverage company in Israel and is active in a variety of Fields of Activity, ranging from milk and milk products through fresh Dips & Spreads, salty snacks and confectionery, to coffee, water, olive oil, honey – and more. The Company's brands in all its core categories command a leading position in the Israeli food market and include many of the Israeli public's favorite and most nostalgic products.

Our Crowd:



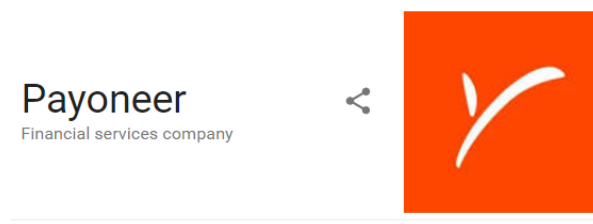
OurCrowd is an equity crowdfunding platform built for accredited investors to provide venture capital funding for early-stage startups. Based in Jerusalem, the company launched in February 2013, with overseas branches in the United States, Canada, Australia and Singapore. Unlike crowdfunding platforms such as Kickstarter and Indiegogo which crowdfund donations to projects typically in return for some type of reward or gift, OurCrowd uses equity crowdfunding as its model. In equity crowdfunding, investments into a company's shares are pooled together from the crowd. Although recent regulatory changes make crowdfunding available to all investors, at this point, OurCrowd is only available to accredited investors. OurCrowd requires its Israeli portfolio companies to donate a portion of their equity to charity as part of the closing of any funding round.

Teva:



Teva is the number one producer of generic drugs in the world. Established in Jerusalem in 1901, the company known today as Teva starts out as a small wholesale drug business that distributes imported medications. Today it produces over 64 billion tablets and capsules per year, with 43,000 employees and operates in 60 countries worldwide.

Payoneer:



Payoneer is a financial services business that provides online money transfer and e-commerce payment services. Payoneer is a registered Member Service Provider of MasterCard Incorporated. The company is headquartered in New York City. Payoneer's services are used by small and medium enterprises looking to connect to Payoneer's trading partners. Payoneer account holders can receive funds into their bank account or e-wallet, or via a re-loadable prepaid debit card (MasterCard) that can be used at points-of-purchase. The platform offers its services with a low currency conversion fee. Payoneer has about three million users in more than 200 countries and provides transactions in more than 150 currencies with its cross-border wire transfers, online payments, and refillable debit card service.

Stratasys:



Stratasys is a leading manufacturer of 3D printing equipment. Their printers enhance the speed of innovation by enabling faster design cycles, simpler supply chains, and more sustainable practices. Users can respond quickly to market changes, make informed and rapid decisions, and reduce product lead time significantly. Their products are used globally in multiple industries (i.e. Aerospace, Architecture, Automotive, Commercial Products Prototyping, Dental, Consumer Products Prototyping, Education, Entertainment, Medical Device Prototyping, Defense and Parts on Demand).

Netafim:



Netafim was founded in 1965 by farmers and Agronomists on the idea that micro-irrigation is a solution to one of the world's most urgent problems: lack of quality water for food production. Today, it is one of the largest irrigation companies in the world, with factories and offices in over 120 countries. It offers a full-line of products for a variety of markets including Agriculture, Landscape & Turf, Greenhouse & Nursery, Mining, and Wastewater.