Laws Encouraging Technological Innovation in Israel : "Strings Attached"

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Abstract

There are numerous laws in Israel that aim to encourage technological innovation in industrial research and development. One common feature of nearly all these laws is that they aim to make capital available to entrepreneurs or make the economic return on investment (ROI) for investors more attractive. This is largely due to the fact that capital is the one main ingredient to a successful technology sector that Israel has historically lacked. This article will focus primarily on the Israeli Law for the Encouragement of Industrial Research and Development, 1984 (the **"R&D Law"**), as amended, and the regulations promulgated thereunder. In addition, the article includes a discussion on the role that the Office of the Chief Scientist ("**OCS**") plays in the Israeli innovation environment, primarily through the eyes of small- and medium-sized companies during their initial start-up phase. In its final part, the article compares between the considerations used and objectives sought by the OCS, as a scientific organization, in determining whether to support research and development, in comparison to those considerations used and objectives sought by venture capital funds in determining whether to invest in similar technologies.

Key Words: R&D laws in Israel; Office of the Chief Scientist; OCS, Fund raising in Israel; Technology sector in Israel; Technology related legislation in Israel; Venture capital in Israel.

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I. Introduction

There are numerous laws in Israel that aim to encourage technological innovation in industrial research and development. One common feature of nearly all of these laws is that they make capital available to entrepreneurs or make the economic return on investment for investors more attractive. This is largely due to the fact that capital is the one main ingredient to a successful technology sector that Israel has historically lacked. This article will focus primarily on the Law for the Encouragement of Industrial Research and Development Law, 1984 (the **"R&D Law"**), as amended,[1] and the regulations promulgated thereunder. However, there are many other laws in Israel that have enabled and nurtured the unique technological and innovation center in Israel, known as the "Silicon Wadi". This article will highlight a few of them.

There are five basic ingredients that are needed to create and nurture a successful entrepreneurial technology sector: (a) knowledge capital; (b) human capital; (c) social capital; (d) entrepreneurship capital; and (e) financial capital.[2] The many highly trained scientists and engineers, world-class aca-

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1. Ĥok le'Eedude Meĥkaar U'pituaĥ Be'ta'asiya [Encouragement of Industrial Research and Development Law], 5744–1984, SH No. 1114 p. 100 (Isr.).

2. Uzi de Haan, *A Hotbed for Entrepreneurship and Innovation: Looking for Success Factors in Israel's High-Tech Clusters*, *in* Pathways to High-Tech Valleys and Research Triangles: Innovative Entrepreneurship, Knowledge Transfer and Cluster Formation in Europe and the United States 79 (Willem Hulsink & Hans Dons eds., 2008), *available at* http://library.wur.nl/frontis/research_triangles/04_de_haan.pdf. The basic ingredients defined as:
   (a). "*Knowledge capital* consists of R&D, innovation and their spillovers. At the individual level it is individual general knowledge and specific domain knowledge that provide the ability to recognize valuable knowledge spillovers." For additional information, *see* p. 82;
   (b). "*Human capital* is a well-established concept in economic literature concerning entrepreneurship. Human-capital theory states that knowledge increases an individual's cognitive capabilities, leading to a more productive and efficient potential activity… Human capital is not only the result of formal education, it also includes experience and practical learning. Human capital is a necessary condition for technological innovation, both at the individual and at the conglomeration level." For additional information, *see* p. 80;
   (c). "*Social capital* is an individual-related resource…the sum of the resources, actual or virtual, that accrue to an individual or a group by virtue of possessing a durable network of more or less institutionalized relationships of mutual acquaintance and recognition. Social capital can be a main contributor to economic growth in the early, entrepreneurial phase of new economic activity, complementing human capital in the

demic institutions, defense establishment and risk-taking culture contribute to Israel having the first four elements, and the government has encouraged and enhanced the free market's involvement in the fifth element through legislation.[3]

Israel's population in 2013 is just over 8 million people.[4] In 2012, Israel's availability of engineers and scientists per capita was ranked ninth out of 144 countries in the world.[5] Israel has several prestigious, world-renowned universities and research institutions that are highly ranked internationally.[6] In fact, the Hebrew University of Jerusalem and the Weizmann Institute and Technion Institute of Technology are considered among the top technol-

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areas of information and experience and providing access to resources and markets. During the discovery process, social capital helps entrepreneurs by exposing them to new ideas and providing them with a wider frame of reference." For additional information, *see* p. 80;

(d). "*Entrepreneurial capital* is distinct from the human and social capital of entrepreneurs. The human capital of entrepreneurs is the endowment at the individual and conglomeration levels with experience, skills and education in entrepreneurship. Repeat entrepreneurs typically perform better than their first-time counterparts. The social capital of entrepreneurs consists of access to networks, organizations and individuals with relevant information, influence and resources. By contrast, we suggest that entrepreneurial capital is the endowment of individuals with entrepreneurial traits. At the conglomeration level of an organization or region, entrepreneurial capital is the accumulation of individual entrepreneurial capital and a legitimization of entrepreneurship and entrepreneurial culture." For additional information, *see* p. 81; and

(e). "*Financial capital* consists of financial resources at the individual and conglomeration levels, and of the mechanisms required for distributing these resources." For additional information, *see* p. 82.

3. *Id.* at 86-93.

4. Press Release, Aviad Klinger, Cent. Bureau of Statistics (Demographics Sector), 65th Independence Day – More than 8 Million Residents in the State of Israel (Apr. 14, 2013), *available at* http://www1.cbs.gov.il/www/hodaot2013n/11_13_097e.pdf.

5. Klaus Schwab, *The Global Competitiveness Report 2012-2013*, World Economic Forum 223 (2012), *available at* http://www3.weforum.org/docs/WEF_GlobalCompetitivenessReport_2012-13.pdf.

6. *Id.* In 2013, the Hebrew University of Jerusalem, ranked 59, Technion Institute of Technology, ranked 77, and Weizmann Institute, ranked 92, according to the *Academic Ranking of World Universities 2013*, ARWU 2013, http://www.shanghairanking.com/World-University-Rankings-2013/Israel.html (last visited Dec. 10, 2013). According to the report, five of the six public universities in Israel are ranked in the top 400 institutions worldwide.

ogy transfer institutions in the world.[7] Israel is ranked 11th in the world for the number of Nobel Prize Laureates per capita.[8] President Shimon Peres described the risk taking ethos of the Israeli people when he explained that "Israel bred creativity proportionate not to the size of our country, but to the dangers we faced. This creativity on the security front, moreover, laid the foundations for civilian industries…The military, in cooperation with civilian industries, became a technological incubator…The Kibbutz became an incubator and the farmer a scientist. High-tech in Israel began with agriculture. Even with little land and less water, Israel became an agricultural leader."[9]

Israel has all the resources needed for building a vibrant technology sector – except for one key ingredient. The missing piece is financial capital. Israel has historically lacked sufficient capital to finance a successful technology sector which inherently involves investment risk. The Israeli government identified this issue early on and adopted measures that would make capital more readily available to entrepreneurs.

II. Laws Encouraging Technological Innovation in Israel

This Article will briefly highlight a few laws that have encouraged technological innovation in Israel before focusing on the R&D Law.

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7. Israeli research institutions received the third largest number of highly competitive infrastructure research grants awarded by the European Research Council to EU universities in 2013, behind the United Kingdom and Germany, with ten grants to the Weizmann Institute and eight grants to the Hebrew University of Jerusalem, among others. *Israel in Top Three Countries to Receive Most European Research Council Grants*, EU Neighborhood Info Centre (July 25, 2013), http://www.enpi-info.eu/medportal/news/latest/34058/Israel-in-top-three-countries-to-receive-most-European-Research-Council-grants (last visited Dec. 10, 2013).

8. *List of Countries by Nobel Laureates per Capita*, Wikipedia (Oct. 14, 2013), http://en.wikipedia.org/wiki/List_of_countries_by_Nobel_laureates_per_capita (last visited Dec. 10, 2013). Countries listed per capita: Luxembourg (2); Switzerland (3); Ireland (4); Sweden (5); Denmark (6); Austria (7); Norway (8); United Kingdom (9); East Timor (10); Israel (11); Ireland (12); Germany (13); Netherlands (14); United States (15); France (16); Japan (42).

9. Shimon Peres, *Foreword* to Dan Senor & Saul Singer, Start-up Nation: The Story of Israel's Economic Miracle, at xii (2011).

A. Venture Capital

In 1993, the first Israeli government sponsored several venture capital funds under the rubric called "Yozma".[10] The Yozma plan called for the creation of ten venture capital funds backed by the government but also funded by local and foreign private investors.[11] Each Yozma fund had a five year call option on the shares held by the Israeli Government, thus allowing the private investors an incentive to buy out the government shares at pre-determined prices.[12] The Yozma program was successful in attracting major corporations to invest in the nascent venture capital community in Israel, thus bringing needed capital and expertise.[13] In the late 1990's, foreign venture capital funds which had previously avoided directly investing in Israeli technology ventures for various reasons began to overcome those barriers and made initial investments in Israeli-led technology ventures.[14] Subsequently, several foreign venture capital funds even opened offices in Israel and established funds dedicated to investing in Israeli technologies.[15] Currently, there are approximately seventy active venture capital funds in Israel, of which fourteen are international venture capital funds with offices in Israel, and many other international firms that actively invest in Israel through an in-house specialist.[16] "The Israeli experience shows that, once several Yozma funds had high returns, the individual reputation effects spilled-over to the VC industry and high tech cluster as a whole; and that this led not only to expansion of existing VCs but also

10. "Yozma" means initiative in Hebrew. This is a program designed to encourage the growth of high-tech by government investment in venture capital funds. The government backed venture capital funds were created when no other venture capital funds existed in Israel and most foreign funds would not invest in Israel. Gil Avnimelech, *VC Policy: YOZMA Program 15-Years Perspective*, Druid (June 3, 2009), http://www2.druid.dk/conferences/viewpaper.php?id=5606&cf=32 (last visited Dec. 10, 2013).

11. *Id.*

12. *Id.* Since 1998, the Yozma funds have been privatized, according to the program plan. This feature assured that the Yozma program was a Catalytic Program.

13. *Id.*

14. *Id.*

15. *Id.* Benchmark, Sequoia, Intel Capital and others established Israeli offices.

16. *Venture Capital in Israel*, Ministry of Economy (Apr. 24, 2013), http://www.investinisrael.gov.il/NR/exeres/A19A138D-87A7-416B-8D62-1C968E035E13.htm (last visited Dec. 10, 2013).

to entry of new VCs".[17]

Since the late 1990's of Israel and the expansion of venture capital in the country, Israel has significantly reformed its tax code and companies law, and adopted new regulations favorable to institutional investors and foreign investors in the interest of attracting and keeping venture capital in Israel. The barriers to entry presented by those laws[18], and the steps that were necessary for investors to overcome them,[19] were an impediment to investment, which have, by and large, been eliminated. The impact of Yozma and the successful creation of a local venture capital community which has since undergone tremendous change over the last twenty years, merging and consolidating into a few venture funds which now compete and co-invest with international funds that have set up offices in Israel is beyond the scope of this article. Government backing may no longer be needed to support the creation or maintenance of venture capital funds in Israel, but the venture capital community investing in Israeli technology ventures, both locally based and internationally, is insufficient to support the thousands of new start-ups that begin each year in Israel. The advantages and disadvantages of funding innovative technology ventures with venture capital is beyond the scope of this article; however, some analysis shows that venture capital tends to favor short term returns for their investors over longer term investment in the technology venture,[20] thus favoring merger and acquisition exit strategy. Furthermore, the tremendous success venture capital has had in Israel has led to a dependence upon venture capital financing in the technology sector, and as a result, other sources of financing, such as angel financing and private investors, are underrepresented.[21]

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17. Avnimelech, *supra* note 10.
18. Pekudat Mas Haĥnasah [Income Tax Ordinance] (New Version), 5721-1961, SH No. 2405 p. 166 (Isr.); i.e., *see infra* note 27.
19. Based on practical experience, until about [2004], it was not uncommon for there to be complicated off-shore tax structures designed for founders and investors to participate in start-ups with at least two corporations on inception, one as an investment vehicle outside of Israel, and one as a research and development vehicle in Israel.
20. *Venture Capital* (definition), Encyclopedia of Small Business, Encyclopedia.com, http://www.encyclopedia.com/topic/Venture_capital.aspx (last visited Dec. 10, 2013).
21. de Haan, *supra* note 2, at 91.

B. Tax Incentives

Israel historically had very high personal and corporate income tax rates.[22] However, these have undergone significant reform. Corporate tax rates were at a high in 1985 at 61% and now are at 25%.[23] In addition, the tax system has moved away from a territorial approach to a personal approach;[24] thus, Israelis are taxed on their world-wide income regardless of where it is earned. The legislature has adopted many tax incentives aimed at making capital more readily available for research and development activities in Israel. These tax incentives are beyond the scope of this article, but few of these incentives are described below:

- The Israeli Law for the Encouragement of Capital Investments (the **"Investments Law"**), which had provided unique incentives to companies with foreign investments (for example, a company with 90% or more foreign ownership was able to benefit from a 10% corporate tax rate compared to a 36% tax rate at certain times for Israeli companies, which were subject to ordinary corporate tax in Israel).[25] Note that the Investments Law today offers preferred tax rates (as low as 7% if the company is located in certain preferential geographic regions) for export oriented companies, which meet certain terms and conditions.[26]

- Foreign investors investing in Israeli companies whose shares are traded on recognized stock exchanges outside Israel are exempt from Israeli capital gains tax as of January 1, 2003.[27] Foreign in-

22. Pekudat Mas Haĥnasah [Income Tax Ordinance], *supra* note 18.
23. Pekudat Mas Haĥnasah [Income Tax Ordinance], *supra* note 18, § 126.
24. Pekudat Mas Haĥnasah [Income Tax Ordinance], *supra* note 18, § 2.
25. Ĥok le'Eedude Hashkaot Hon [Encouragement of Capital Investments Law], 5719-1959, SH No. 296 p. 293 (Isr.).
26. *Id.* § 51(16)(1).
27. Pekudat Mas Haĥnasah [Income Tax Ordinance], *supra* note 18, *see* § 97(b2) of the Ordinance for the exemption for securities traded on an Israeli stock market; *see* Israeli Income Tax Regulations (Exemption from Taxes to Non-Israeli Residents' Capital Gains) for the exemption for securities traded on a non-Israeli stock market; and *see* § 97(b3) of the Ordinance for all other securities.

vestors investing in Israeli companies whose shares are traded on an Israeli stock exchange have been exempt from Israeli capital gains tax as well if certain terms and conditions are satisfied. Since 2009, a similar exemption has also applied to capital gains of foreigners investing in privately held companies (prior to that time, the exemption for investments in privately held companies was not quite straightforward and only applied to foreign investors residing in jurisdictions that have a double tax treaty with Israel preventing double taxation).[28]

- In order to provide additional incentives for investment in Israeli technology, the Israeli legislature introduced the Israeli "Angel's Law", which provides that all individuals (both Israeli residents and foreigners) investing in privately held Israeli corporations between January 1, 2011 and December 31, 2015 will be entitled to deduct the amount of their investment from their overall taxable income from all sources.[29] The investment must be made in qualifying target companies and the investment is limited to NIS 5M per target company.[30] Other terms and conditions apply as well.[31]

The implementation of the tax policies and tax reform in connection with technology ventures is beyond the scope of this article and could warrant a separate article. The tax system in Israel has been successfully reformed to encourage entrepreneurs to remain in Israel, to declare their income in Israel, to set up their start-up ventures in Israel and to raise capital from local and foreign investors in Israel.

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28. Pekudat Mas Haĥnasah [Income Tax Ordinance], *supra* note 18. This exemption now also applies to Israeli companies the shares of which are traded on recognized stock exchanges outside of Israel and to the disposition of rights in non-Israeli companies, the main assets of which are rights, directly or indirectly, to assets located in Israel.

29. Ĥok Hamediniut Hacalcalit Leshanim 2011 ve-2012 [Economic Policy for the Years 2011 & 2012 Law] (as amended), 5771-2011, SH No. 2271 p. 138 §20 (Isr.).

30. *Id.*

31. *Id.* OCS Guideline: Special Applications and Approvals, No. 200-05, ver. 02, § 3.19 (Isr.) (last updated February 2012).

C. Capital Markets

In 2005, the Tel Aviv Stock Exchange ("**TASE**") regulations were amended to allow research and development companies to carry out initial public offering on the exchange.[32] The amendments provided relief for smaller companies regarding minimum equity requirements, minimum public shareholder requirements, and additional criteria.[33] In order to qualify, the company must have invested at least 3 million New Israeli Sheqel ("**NIS**") in research and development activities in the last three years, and it must have been approved as a research and development company by the Office of the Chief Scientist.[34]

This led to a dearth of life science and technology companies listing on TASE raising tens of millions of NIS in many small public offerings. The large number of R&D companies in the life sciences has led to the establishment of the bio-med index on the TASE.[35] These companies suffer from lower valuations generally, perhaps due to a lack of analyst coverage and low trading volume, which is pervasive on TASE and all the more so for smaller companies. However, many research and development companies and their venture capital investors that faced difficulty raising additional capital from private equity sources have embraced the opportunity to raise capital from the public.

Though beyond the scope of this article, there is public debate about the use of the capital markets to raise money for the technology sector, particularly in the earlier stages of research and development, when the investment risk is higher.[36]

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32. *R&D Companies*, Tel-Aviv Stock Exchange, http://www.tase.co.il/Eng/listings/ipo/researchanddevelopmentcompanies/Pages/RDCompanies.aspx (last visited Dec. 12, 2013).

33. *Id.*

34. *Id.*

35. The index was launched on April 3, 2011 and replaced the Tel-Tech 15 Index, *see*: *TA BlueTech-50 Index*, Wikipedia, http://en.wikipedia.org/w/index.php?title=TA_BlueTech-50_Index&oldid=582744355 (last visited Dec. 16, 2013).

36. The Israeli Securities Authority is considering relief for qualified research and development companies that list of TASE such as crowd-funding and listing of venture capital funds. *See* Committee to Promote Investment in Public Companies Engaged in R&D, *Interim Report* (June 4, 2013), *available at* http://www.isa.gov.il/Download/IsaFile_7742.pdf.

III. The R&D Law

The centerpiece of Israel legislation supporting technological innovation is the Encouragement of Industrial Research and Development Law ("**R&D Law**").[37] The R&D Law was adopted in 1984 and is administered and implemented by the Office of the Chief Scientist ("**OCS**") in the Ministry of Industry, Trade & Labor. However, the OCS was created before the R&D Law was adopted following the recommendations of a government commission headed by Professor Kachalsky in 1968, which suggested that the government support civilian research and development.[38] It was established as an office in the Ministry of Industry and Commerce and mandated to research and development projects.[39] In the early years of the OCS, the projects it supported were mostly conducted through academic institutions and related to civilian applications of military technologies and agricultural technologies and at national research and development laboratories.[40]

The grants made by the OCS to support R&D, come with "strings attached" that promote government policies and objectives. Among the objectives of the R&D Law is the creation of new job opportunities in the technology sector by encouraging and supporting domestic industrial research and development in Israel.[41] This has been interpreted by the OCS, as encouraging technological entrepreneurship that assists in the development of new technologies in Israel in order to foster the Israeli economy, to leverage the skilled research and development work force and knowledge base in Israel as well as to create manufacturing jobs in Israel.

The R&D Law has undergone a series of significant amendments since its inception which have brought it more in line with global economic forces while still promoting the government policy objectives.

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37. Ĥok le'Eedude Meĥkaar U'pituaĥ Be'ta'asiya [Encouragement of Industrial Research and Development Law], *supra* note 1.

38. Manuel Trajtenberg, *R&D Policy in Israel: An Overview and Reassessment*, *in* Innovation Policy in the Knowledge-Based Economy 5 (Maryann P. Feldman & Albert N. Link eds., 2001), *available at* http://www.tau.ac.il/~manuel/pdfs/R&D%20Policy%20Israel.pdf; Manuel Trajtenberg, *Government Support for Commercial R&D: Lessons from the Israeli Experience*, *in* 2 Innovation Policy and the Economy 79, 82 (Adam B. Jaffe, Josh Lerner & Scott Stern eds., 2002), *available at* http://www.nber.org/chapters/c10786.pdf.

39. *Id.*

40. *Id.*

41. Ĥok le'Eedude Meĥkaar U'pituaĥ Be'ta'asiya [Encouragement of Industrial Research and Development Law], *supra* note 1, § 1.

A. OCS Administration; Technology Administered by Technologists

One of the unique elements of the R&D Law is that it organizes the administration of the OCS and makes it clear that although the OCS is part of the government bureaucracy, it is run with a strong focus and attention to the underlying technologies that it supports. The OCS has been historically headed by scientists, engineers and hi-tech business people who have experience in the technology and innovation.[42] Many of the people who conduct the day-to-

42. Brigadier General Yitzchak Yaakov, the first Chief Scientist from 1969-1977, founded the R&D unit in the Israeli Defense Forces and studied at M.I.T. *Yitzchak Yaakov*, He.Wikipedia, http://he.wikipedia.org/wiki/%D7%99%D7%A6%D7%97%D7%A7_%D7%99%D7%A2%D7%A7%D7%91 (last visited Dec. 15, 2013).
Professor Arie Lavie, the second Chief Scientist from 1977-1983, obtained his PhD in Applied Mathematics in the Weizmann Institute of Science and his post-doctor studies accomplished in the University of Cambridge. *Arie Lavie*, CTI (Creative Technologies Israel), http://www.cti-creative.com/about.htm (last visited Dec. 15, 2013).
Mr. Yigal Erlich, the third Chief Scientist from 1984-1992, holds a B.Sc. and M.Sc. in Chemistry and an MBA from the Hebrew University of Jerusalem. *Yigal Erlich: Founder, Chairman and Managing Partner*, The Yozma Group, http://www.yozma.com/team/yigal_erlich.asp (last visited Dec. 15, 2013).
Dr. Yehoshua (Shuki) Gleitman, the fourth Chief Scientist from 1993- 1996, holds a Ph.D. (with distinction), M.Sc. (with distinction) and B.Sc. in Physical Chemistry from the Hebrew University of Jerusalem. *Yehoshua Gleitman: Profile*, Forbes, http://www.forbes.com/profile/yehoshua-gleitman/ (last visited Dec. 15, 2013).
Dr. Orna Berry, the fifth Chief Scientist from 1997-2000, received her M.A. and B.A. degrees in Statistics and Mathematics from Tel Aviv University, and worked for leading international high-tech companies and founded Ornet Data Communications Technologies, an Israeli high-tech company that would be the first to be acquired by an European company. *Orna Berry*, Wikipedia (Oct. 15, 2013), http://en.wikipedia.org/wiki/Orna_Berry (last visited Dec. 15, 2013).
Mr. Carmel Vernia, the sixth Chief Scientist from 2000-2002, received an M.S. in Electrical and Computer Engineering from the University of California, Davis, and a B.S. in Electrical Engineering from the Technion Israel Institute of Technology, and worked for leading high-tech companies before becoming Chief Scientist, including Comverse and Verint. *Carmel Vernia*, Startup Factory, http://www.startupfactory.co.il/?CategoryID=160&ArticleID=182 (last visited Dec. 15, 2013).
Dr. Eli Opper, the seventh Chief Scientist from 2002-2010, holds B.Sc. and M.Sc. degrees in Electrical Engineering from the Technion Haifa Israel and a Ph.D. in Computer Engineering from UT at Austin Texas. He worked for leading high-tech companies before becoming Chief Scientist, including Rafael. *Eli Opper*, Incubit Technology Ventures, http://www.incubit.co.il/text.asp?category=283_295_297_ (last visited Dec. 15, 2013).
Mr. Avi Hasson, the eighth Chief Scientist from 2011 to the present, held a ten-year tenure with Gemini Israel Funds (a venture capital fund), where he served as a General Partner

day work on applications for funding of the OCS are also professionals with appropriate technical background. The professional examiners who examine applications are scientists and engineers with the technical background to examine the particular technology that is the subject of the particular application they are reviewing. Many of the members of the Research Committee, discussed in greater detail below, are also representatives of the business and technical side of the technology sector. Therefore, although the OCS is a bureaucracy, it is a professional organization equipped to evaluate the technologies it supports financially.

The R&D Law established an Industrial Research and Development Administration, known as the "Administration" for the purpose of implementing the R&D Law and encouraging investment in industrial research and development.[43] The Administration is composed of two branches: (a) the Head of the Administration; and (b) the Research Committee.[44] The Chief Scientist in the Ministry of Industry and Trade, now known as the Ministry of Economy, serves as the Head of the Administration, and by virtue of this position, also serves as a member and chairperson of the Research Committee.[45] The Deputy Chief Scientist, appointed by the Head of the Administration to serve as a member of the Research Committee pursuant to Section 9(a)(2) will be the substitute chairperson of the Research Committee.[46] The Head of Administration is responsible for the implementation of the decisions of the Research Committee.[47] The Research Committee is comprised of nine members: the

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and managed investments in communications, storage and consumer electronics. Before this time, he spent a decade working for several leading telecommunications companies, such as ECI Telecom, ECtel and Tadiran Systems, where he fulfilled roles in product marketing and business development. Mr. Hasson holds Bachelor of Arts degrees in both Economics and Middle Eastern Studies and a Master of Business Administration from Tel Aviv University. *Avi Hasson*, WIKIPEDIA (OCT. 22, 2013), http://en.wikipedia.org/wiki/Avi_Hasson (last visited Dec. 15, 2013).

43. Ĥok le'Eedude Meĥkaar U'pituaĥ Be'ta'asiya [Encouragement of Industrial Research and Development Law], *supra* note 1, § 5.

44. Ĥok le'Eedude Meĥkaar U'pituaĥ Be'ta'asiya [Encouragement of Industrial Research and Development Law], *supra* note 1, § 6.

45. Ĥok le'Eedude Meĥkaar U'pituaĥ Be'ta'asiya [Encouragement of Industrial Research and Development Law], *supra* note 1, § 7(a).

46. Ĥok le'Eedude Meĥkaar U'pituaĥ Be'ta'asiya [Encouragement of Industrial Research and Development Law], *supra* note 1, § 7(b).

47. Ĥok le'Eedude Meĥkaar U'pituaĥ Be'ta'asiya [Encouragement of Industrial Research and Development Law], *supra* note 1, § 8(a).

Head of Administration (the Chief Scientist); Deputy Chief Scientist, appointed by the Head of Administration; two representatives of Ministry of Industry and Trade holding academic degrees in fields related to the work of the Committee, appointed by the Minister of Industry and Trade from among the Minister's employees; two representatives of the Treasury Ministry appointed by the Minister of the Treasury from among the Minister's employees; two representatives of the public from industry appointed by the ministers, and insofar as possible, one shall have education in the natural sciences and technology; one representative of the public, not a public servant, with business or industrial management experience of at least ten years, appointed by the ministers.[48] The members of the Research Committee serve for three year terms; and representatives of the public may not have more than one renewal term on the Research Committee.[49] The composition of the Research Committee tends toward people with understanding of the technologies and sciences that are supported by the OCS.

The Research Committee decides whether to grant "Approvals" for research and development plans, referred to as "Plans", within the State budget, prescribes conditions for such Approvals and also decides on the grant of "Benefits" to the Plans and the rate of such Benefits.[50] In addition, the Research Committee may decide, with the approval of the Finance Committee of the Knesset, and within the budget approved therefor in the same fiscal year, on alternative Benefit tracks to encourage research and development in industry.[51] The Research Committee may also determine with the approval of the Finance Committee of the Knesset conditions and criteria for granting Benefits and their rate in accordance with the objectives of the R&D Law.[52] The Research Committee is also vested with the power to recommend to any

48. Ĥok le'Eedude Meĥkaar U'pituaĥ Be'ta'asiya [Encouragement of Industrial Research and Development Law], *supra* note 1, § 9(a).

49. Ĥok le'Eedude Meĥkaar U'pituaĥ Be'ta'asiya [Encouragement of Industrial Research and Development Law], *supra* note 1, § 9(b).

50. Ĥok le'Eedude Meĥkaar U'pituaĥ Be'ta'asiya [Encouragement of Industrial Research and Development Law], *supra* note 1, § 10(a)(1). Benefits are defined in § 2 of the R&D Law to include all grants, loans, exemptions, reductions and relaxations mentioned in the R&D Law provided for an approved Plan.

51. Ĥok le'Eedude Meĥkaar U'pituaĥ Be'ta'asiya [Encouragement of Industrial Research and Development Law], *supra* note 1, § 10(a)(2).

52. Ĥok le'Eedude Meĥkaar U'pituaĥ Be'ta'asiya [Encouragement of Industrial Research and Development Law], *supra* note 1, § 10(a)(3).

competent authority authorized to do so, to grant within the framework of the enactments within its sphere of competence or with the implementation of which it is in charge, and within the framework of the criteria prescribed by the Research Committee for the approval of Plans any reduction, relaxation, license or loan that may assist the achievement of the objectives of the R&D Law.[53]

B. Grants and Royalties

In order to obtain a research and development grant, an Israeli company must file an application for approval with the Research Committee in the OCS, in which the company describes a single or multi-year research and development program that it will undertake with the aim of developing know-how, processes or methods for the manufacture of a new product or the significant improvement of an existing product or a new process or a significant improvement to an existing process.[54] The applicant must explain the novelty of the product to be developed, the competitive advantage of the product over other products in the market and where the applicant intends to manufacture the product, and if outside of Israel, to what extent.[55] An R&D application approved by the OCS is called a "Plan" under the R&D Law.[56] If approved,

53. Ĥok le'Eedude Meĥkaar U'pituaĥ Be'ta'asiya [Encouragement of Industrial Research and Development Law], *supra* note 1, § 10(a)(5).

54. Ĥok le'Eedude Meĥkaar U'pituaĥ Be'ta'asiya [Encouragement of Industrial Research and Development Law], *supra* note 1, § 15. The primary support is grants for R&D in industry, which supports small and medium enterprises' as well as large companies' industrial research. The OCS administers a variety of support programs for research and development under the R&D Law – Pre-Seed Programs for early stage companies; Magnet/Magneton programs for generic R&D; and international cooperation in research and development, which match companies from two or more countries to conduct research and development. Generally, these programs follow the basic principles of the R&D Law, of grants with royalty obligations, reporting obligations, restrictions on manufacturing and restrictions on transfer of ownership, with some modifications. This is beyond the scope of this article, but they generally oblige the recipient of funds to similar reporting requirements, sometimes require royalty payments and generally restrict the transfer of know-how and manufacturing overseas subject to obtaining OCS approval.

55. Ĥok le'Eedude Meĥkaar U'pituaĥ Be'ta'asiya [Encouragement of Industrial Research and Development Law], *supra* note 1.

56. Ĥok le'Eedude Meĥkaar U'pituaĥ Be'ta'asiya [Encouragement of Industrial Research and Development Law], *supra* note 1, § 4 of the R&D Law defines a "Plan" as "an annual or multi-annual research and development plan, consisting of one or more files (as defined in the R&D Law), as a result of which any know-how, processes or methods are to become

the applicant is called an "Approved Recipient".[57]

The application must describe in detail the plan that the applicant intends to perform together with details of the investment required, the applicant's financial resources, a review of the existing know-how in the field and the ability to obtain it, a description of the innovation of product developed and its advantages over other products and details regarding how the applicant intends to manufacture the product if the intended results of the research and development are achieved, a declaration of the places where manufacturing will take place in Israel and abroad, the manufacturing activity to take place in those places, and reasoning why certain manufacturing activity is planned to be implemented abroad, and the percentage of added value planned in Israel and abroad, known as a "Statement Regarding the Location off Manufacture and Percentage of Added Value". This Statement includes details of ownership rights in know-how, manufacturing, marketing and the arrangements that have been made to secure manufacturing in Israel.[58]

The Research Committee receives opinions from professional examiners empowered by the Head of the Administration for the purpose of reviewing applications.[59] The professional examiner provides an opinion whether the Plan has a reasonable prospect of leading to the creation of a Product. The Research Committee is to only approve a Plan or part of a Plan which the Research Committee believes has a reasonable prospect of leading to the creation of a Product and could lead to the advancement of the objectives of the Law. Only a company incorporated in Israel may receive an Approval under the R&D Law, known as an "Approved Recipient". That Approved Recipient is expected to develop in Israel by Israeli residents a New Product or a significant improvement to an existing Product. The Research Committee may, for reasons that it records, make grants to an Approved Recipient where it is essential for part of the implementation of the Plan to be executed not in Israel or not by Israeli residents. This is the exception, since the policy objec-

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available for the manufacture of a New Product (as defined in the R&D Law) or a substantial improvement of one or more existing Products (as defined in the R&D Law) or the development of a new process or a substantial improvement of one or more existing processes."

57. Ĥok le'Eedude Meĥkaar U'pituaĥ Be'ta'asiya [Encouragement of Industrial Research and Development Law], *supra* note 1, § 4.

58. Ĥok le'Eedude Meĥkaar U'pituaĥ Be'ta'asiya [Encouragement of Industrial Research and Development Law], *supra* note 1, § 16(a).

59. Ĥok le'Eedude Meĥkaar U'pituaĥ Be'ta'asiya [Encouragement of Industrial Research and Development Law], *supra* note 1, § 17(a).

tive of the OCS is to create and maintain jobs in Israel.

The R&D Law provides that the Research Committee is to give significant weight to the Approval Recipient's declarations regarding location of manufacture and Percentage of Added Value in Israel.[60] From a legal analysis, this would seem to be of primary consideration, since it is the one consideration that is specifically set out as having significant weight in the statute. However, following the amendments to the law that allow for initial declarations of manufacture in Israel, this really only impacts the level of support given and not the decision whether to give support. This affects the amount of support the OCS will provide the research and development budget. The greater the commitment to manufacture in Israel, the more support for research and development becomes available through the OCS. Grants are available between 20% and 50% of the approved research and development budget. The other factors examined are elements weighed and considered in the opinion prepared by the professional examiner for review by the Research Committee, but the relative weight of those factors is not expressed in the statute.

The focus of the review of the Research Committee of applications for grants is on the innovativeness of the product, the Statement Regarding Location of Manufacture, and the financial resources and requirements.[61] Although the Research Committee considers similar factors that a venture capital firm might consider, such as potential market size for the product and the abilities of the entrepreneurs to "get the job done", these factors are less important for the OCS than for venture capital funds.[62] The more limited review by the

60. Ĥok le'Eedude Meĥkaar U'pituaĥ Be'ta'asiya [Encouragement of Industrial Research and Development Law], *supra* note 1, § 17(a)(1).

61. Based in part on conversations with the Deputy Chief Scientist, Mr. Aviram Zolti in October and November 2013, the focus of the OCS evaluation is on the innovativeness of the technology in the product, with lesser focus on the market size and team, though these elements are also examined.

62. Based in part on interviews with Israeli venture capitalists in November and December 2013, the top investment consideration for the VC is whether the product idea is addressing a real need in the market, and how sizeable is that market. After assessing the needs of the market for the idea, they evaluate whether the people in the venture have the skills to get the job done and whether they are trust worthy. Only after passing these two hurdles, do the venture capitalists look to how innovative is the technology. They believe that technology can be improved; innovation can be improved; it can even be scrapped and restarted from scratch, in order to 'address the market pain'. However, the other two factors are elements are factors that neither a start up nor the venture capital fund financing it can change. Either the market has a need for a particular kind of product or it doesn't; either the team has the skills to produce a product or it doesn't.

OCS into the market need for a particular product and the team's capabilities, compared to the kind of review conducted by venture capital funds before investing, seems appropriate given the relatively smaller capital risk they generally bear in start-up ventures.

The Approved Recipient is required to ensure that all know-how derived from the research and development performed under the approved Plan, and all rights arising therefrom, are owned by the Approved Recipient from the time of inception of such know-how.[63] Thus, the Approved Recipient must take steps to ensure that all its employees and consultants have assigned all proprietary rights to the Approved Recipient, and the Approved Recipient must ensure that it does not intentionally or unintentionally alienate its ownership rights in the intellectual property so developed without appropriate approval. Furthermore, since the R&D Law is territorial and can only be enforced in Israel, the OCS requires that as part of the approval of changes of control in the equity ownership of Approved Recipients, foreign shareholders execute an undertaking to uphold the R&D Law, including the provisions regarding maintaining ownership of know-how in Israel.[64]

Royalties are payable to the government on income from sales of (a) products developed within the framework of an approved Plan, (b) services which are associated with the product or which form a part of the product, and (c) products which are based on the core-technologies supported by the OCS but which are funded by other (non-OCS) sources.[65] For the purposes of this article, we refer to these as OCS Supported Products. The regulations provide that royalties are paid based on the 'sale price' recorded in the Approved Recipient's books or financial records "including agents' commissions, marketing commissions, costs of shipping, travel, agency fees, and the like, but not including purchase tax, VAT and exchange rate insurance.[66] "Royalties are paid at rates of between 3% - 5% of sales and are paid until the full

63. Ĥok le'Eedude Meĥkaar U'pituaĥ Be'ta'asiya [Encouragement of Industrial Research and Development Law], *supra* note 1, § 19(b1).

64. OCS Guideline: Special Applications and Approvals, No. 200-05, ver. 02, § 3.8, Annex B (Isr.) (last updated February 2012).

65. *Id.* § 20.

66. Takanot le'Eedude Meĥkaar U'pituaĥ Be'ta'asiya (Shiyur Hatamlugim Ve'clalim Le'tashlumam) [Encouragement of R&D Regulations (Royalty Rates and Rules for Payment)], 1996 KT 5766, 1333, as amended 1998 KT 5939, 110; 2000 KT 6064, 62; 2001 KT 6126, 13 (Isr.).

amount of the grant has been repaid, plus interest.[67] The royalty rate may be increased in the event that manufacturing has been moved to some degree overseas (as discussed in greater detail below).[68] Even after the full amount of the royalty obligation has been made, the Approved Recipient continues to be obligated to make periodic reports to the OCS and is still subject to the restrictions on overseas transfer of know-how and manufacturing rights.[69]

If an Approved Recipient sells OCS Supported Products to an affiliated company which then resells the OCS Supported Products to a third party customer, the 'sale price' to the affiliated company to the customer is considered the income for the purposes of determining income giving rise to royalties.[70] An affiliated company is one that is a directly or indirectly controlled or controlling entity or an entity under common control; or an entity which was granted manufacturing rights in the OCS Supported Product.[71] If no consideration is given for the sale between affiliated companies, then the Research Committee may attribute market value to the sale for the purposes of determining royalty obligations.[72]

If the OCS Supported Product is sold as part of a combined product or system, then royalties may be calculated in one of two ways. If the OCS Supported Product has a separate market price which can be evidenced by company sales, then that price applies.[73] If the OCS Supported Product does not have a separate market price, the sales price is determined based on the cost of production of the OCS Supported Product relative to the other elements and components of the system or combined product.[74]

If the research and development is unsuccessful, there is no obligation to repay the grant money.[75] Thus, OCS funding is relatively low-risk since the repayment obligation arises only when the R&D is successful. However,

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67. *Id.* § 4.
68. *Id.* § 4.
69. *Id.* § 6.
70. *Id.* § 2.
71. *Id.*
72. *Id.*
73. *Id.*
74. *Id.*
75. *Id.* The obligation to pay royalties only arises from sales of "Products" arising under an Approved Plan.

there are other limitations and restrictions under the R&D Law that can make receiving funding from the OCS a factor in determining one's exit strategy.

C. Periodic Reporting

Approved Recipients are required to report to the OCS on the progress of their research and development activity, sales and royalties, investment and changes of control transactions and licensing arrangements.[76] There are also periodic reports on the ownership of the know-how developed under the Plan and arising therefrom, and the OCS has audit rights and may send its technical examiners to review this information with the Approved Recipient.[77] Many of these obligations continue perpetually even after completion of the royalty payment obligation.

D. Transfer of Manufacturing Activities

Prior to 2002, all manufacturing activities under the R&D Law by the Approved Recipient or its designee were required to be performed in Israel;[78] however, the Research Committee had discretion to allow the transfer of manufacturing activities overseas, but only under special circumstances. Such special circumstances were interpreted by the Research Committee to mean that the facilities or skilled labor required to perform the manufacturing did not exist in Israel and could not be created economically. For example, because the cost of creating a 'fab' for semiconductor chips was too prohibitive, the OCS permitted certain Approved Recipients in the field of semiconductor chip design in the 1990s to manufacture overseas and pay increased royalties. The venture capital community was highly critical of the OCS' protectionist policy and strongly encouraged Israeli start-ups to avoid receiving funding from the OCS because of the limitations on manufacturing, tell-

76. Ĥok le'Eedude Meĥkaar U'pituaĥ Be'ta'asiya [Encouragement of Industrial Research and Development Law], *supra* note 1, § 43; Takanot le'Eedude Meĥkaar U'pituaĥ Be'ta'asiya (Shiyur Hatamlugim Ve'clalim Le'tashlumam) [Encouragement of R&D Regulations (Royalty Rates and Rules for Payment)], *supra* note 66, § 6.

77. Ĥok le'Eedude Meĥkaar U'pituaĥ Be'ta'asiya [Encouragement of Industrial Research and Development Law], *supra* note 1, §§ 18, 20.

78. Ĥok le'Eedude Meĥkaar U'pituaĥ Be'ta'asiya [Encouragement of Industrial Research and Development Law], *supra* note 1, § 19 (*see* legislative history, historic provision).

ing them that this could negatively affect their exit strategy, particularly with multinational acquirers. Professor Manuel Trajtenberg commented at the time that the conditions of production in Israel "might lead to serious allocation inefficiencies."[79] He further recommended that "there is room to consider the elimination of this provision of the law: there is no strict economic rationale for it, and it leads to production inefficiencies. Israel presumably has a comparative advantage in R&D, not in the assembly of 'boxes' containing the sophisticated innovations produced there".[80]

Since the amendment of Section 19A of the R&D Law in 2002 and subsequent amendments, an Approved Recipient is required to declare up front the proportion of manufacturing that it will conduct overseas and then may later request approval to change the proportion of overseas manufacturing.[81] The OCS may approve the export to outside of Israel manufacturing activities originally declared by the Approved Recipient to be performed in Israel; however, subject to certain limited exceptions, such approval will entail raising the total royalty liability in accordance with the applicable regulations[82] and the annual rate of return, as described below.

Approval by the OCS to manufacture some portion of its product outside of Israel does not waive any of the other obligations to the OCS, and the Approved Recipient will remain fully subject to the R&D Law.

The OCS rules provide that the aggregate amount of royalties payable by an Approved Recipient shall be increased if it transfers manufacturing rights outside of Israel as set forth in the table below.

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79. *See* Manuel Trajtenberg, *Government Support for Commercial R&D: Lessons from the Israeli Experience*, *in* 2 Innovation Policy and the Economy 79, 108 (Adam B. Jaffe, Josh Lerner & Scott Stern eds., 2002), *available at* http://www.nber.org/chapters/c10786.pdf.

80. *Id.*

81. Ĥok le'Eedude Meĥkaar U'pituaĥ Be'ta'asiya [Encouragement of Industrial Research and Development Law], *supra* note 1, § 19A.

82. Takanot le'Eedude Meĥkaar U'pituaĥ Be'ta'asiya (Shiyur Hatamlugim Ve'clalim Le'tashlumam) [Encouragement of R&D Regulations (Royalty Rates and Rules for Payment)], *supra* note 66, § 4.

Scope of manufacturing outside of Israel	Aggregate amount of royalties (in comparison to original obligation to pay 100% of the grant, including interest and linkage differentials)
90% and more of the manufacturing activity is outside of Israel	300%
50%–90% of the manufacturing activity is outside of Israel	150%
Up to 50% of the manufacturing activity is outside of Israel	120%

1. Manufacturing outside of Israel by the Approved Recipient:

In accordance with sec. 4(b)(1) of the R&D Regulations, if manufacturing is to be undertaken by the Approved Recipient, such company will be required to repay an increased royalty liability as of the first sale of a product developed pursuant to the approved OCS plan, calculated based on the sale price of such product.[83]

2. Manufacturing outside of Israel by others:

If the Approved Recipient chooses to outsource the manufacturing activities, then, according to sec. 4B(b)(2) of the R&D Regulations, the repayment rate would be equal to the quotient obtained by dividing (i) the total index-linked sum of grants granted by (ii) the total index-linked sum of grants and investments of the Company in the project, as calculated by an authorized accountant on behalf of the OCS. In such event, the royalties shall be calculated from any income generated from the product.[84]

3. Application for transfer of manufacturing:

An Approved Recipient may apply for Transfer of Manufacturing Rights, which application should include the following: (i) a description of the

83. Takanot le'Eedude Meĥkaar U'pituaĥ Be'ta'asiya (Shiyur Hatamlugim Ve'clalim Le'tashlumam) [Encouragement of R&D Regulations (Royalty Rates and Rules for Payment)], *supra* note 66, § 4(b) (1).

84. Takanot le'Eedude Meĥkaar U'pituaĥ Be'ta'asiya (Shiyur Hatamlugim Ve'clalim Le'tashlumam) [Encouragement of R&D Regulations (Royalty Rates and Rules for Payment)], *supra* note 66, § 4(b) (2).

product and manufacturing process and what this process includes, both on the part of the Approved Recipient and any required subcontractors; (ii) the reason for the inability to manufacture in Israel; (iii) an agreement or draft agreement between the Approved Recipient and the manufacturer; and (iv) a statement from the CEO of the Approved Recipient which includes various undertakings on the Company's behalf, including that no knowledge and/or technology which is supported by the OCS is being transferred, and other additional undertakings.[85] If approved, the royalty amounts will be increased as discussed above.

E. Transfer of Technology

Under the OCS rules, technology developed with funding of the OCS, which is not the final product, and any related right thereto may not be transferred outside of Israel except with the prior approval of the OCS at its discretion.[86] For the purposes of this article, this is referred to as "OCS Supported Know-How". A transfer for the purpose of OCS rules means an actual sale of the technology, any exclusive license to develop, market, and manufacture of products resulting from the technology or any other transaction which in essence constitutes a transfer of the technology. It should be noted that transfer of OCS Supported Know-How was strictly prohibited until 2005 when the R&D Law amended.[87] The inability to transfer OCS Supported Know-How was one of the chief criticisms leveled at the R&D Law by the international investing community as being an impractical barrier to commercial activity. Venture capital funds in the tech-bubble period frequently advised target companies to avoid receiving OCS funding because it would harm their chances of a successful exit with large multinational companies with policies to hold their intellectual property in off-shore locations.

Since 2005, this barrier has been lifted and now OCS Supported Know-How may be transferred overseas, subject to Research Committee approval

85. OCS Guideline, *supra* note 64, § 3.6.

86. Ĥok le'Eedude Meĥkaar U'pituaĥ Be'ta'asiya [Encouragement of Industrial Research and Development Law], *supra* note 1, § 19(b)(1).

87. Ĥok le'Eedude Meĥkaar U'pituaĥ Be'ta'asiya [Encouragement of Industrial Research and Development Law], *supra* note 1 (*see* Amendment No. 3).

and the payment of a redemption fee;[88] thus adding a cost to the exit transaction.

The Research Committee of the OCS which reviews and approves applications to the OCS may, pursuant to Section 19B(b) of the R&D Law, in special cases, approve an application to transfer outside of Israel know-how that was developed with funding of the OCS, provided that a redemption fee is paid to the OCS. [89] The formula for determining the redemption fee takes into account royalties paid. The statute provides for a formula to determine the redemption fee to be paid, according to which the minimum redemption fee can be no less than unpaid royalties plus interest, less royalties paid.[90] The Research Committee has discretion to receive a lesser amount in the event of liquidation of the company or receivership proceedings if the assets available for distribution are less than the amount payable to the OCS, in both cases where the proceedings are managed by the court.[91] Ever since the law was amended to allow for the transfer of OCS Supported Know-How, the venture capital community has lobbied the government to limit the total potential liability. In 2012, regulations were adopted that set maximum limits on the amounts that must be paid in the event that OCS Supported Know-How is exported from Israel as part of an exit transaction.[92]

1. The Redemption Fee

The redemption fee for the sale of OCS Supported Know-How[93] (as op-

88. Ĥok le'Eedude Meĥkaar U'pituaĥ Be'ta'asiya [Encouragement of Industrial Research and Development Law], *supra* note 1 (*see* Amendment No. 3).

89. Ĥok le'Eedude Meĥkaar U'pituaĥ Be'ta'asiya [Encouragement of Industrial Research and Development Law], *supra* note 1, § 19B. The R&D Law refers to a "Basic Amount" to be paid, which term is somewhat vague. For the purposes of this article, the term 'redemption fee' is used.

90. Ĥok le'Eedude Meĥkaar U'pituaĥ Be'ta'asiya [Encouragement of Industrial Research and Development Law], *supra* note 1, § 19B.

91. Ĥok le'Eedude Meĥkaar U'pituaĥ Be'ta'asiya [Encouragement of Industrial Research and Development Law], *supra* note 1, § 19B (e).

92. Ĥok le'Eedude Meĥkaar U'pituaĥ Be'ta'asiya [Encouragement of Industrial Research and Development Law], *supra* note 1, § 19B (b)(1); Takanot le'Eedude Meĥkaar U'pituaĥ Be'ta'asiya (Ha'schum Ha'meyravey Le'tashlum Be'ad Ha'avarat Yeda Le'fee Se'eef 19B (b) (1) ve-(2) Le- Ĥok) [Encouragement of R&D Regulations (Maximum Payment Amounts for Transfer of Know-How Under Section 19B (b) (1) & (2) of the Law)], 5773-2012 KT 7182, 199.

93. Ĥok le'Eedude Meĥkaar U'pituaĥ Be'ta'asiya [Encouragement of Industrial Research and Development Law], *supra* note 1, § 19B (b) (1).

posed to the sale of a company) is the greater of:

(i) the amount equal to the sale price of the OCS Supported Know-How multiplied by a fraction, the numerator of which is the total of all grants received by the Approved Recipient for the OCS Supported Know-How sold, and the denominator of which is the total monetary investment in performing the Plan. Usually, this ratio corresponds to the percentage of the Plan's budget financed by the OCS (*i.e.*, 20-50%); or

(ii) the amount of the grants, plus annual interest as provided by the R&D Law (based on LIBOR rates), less royalties actually paid.

When OCS Supported Know-How is transferred overseas as part of a sale of the Approved Recipient[94] "*as a result of which the Approved Recipient ceases to be a legal entity incorporated in Israel*", the Approved Recipient will pay a redemption fee equal to the greater of:

(i) The amount equal to the sales price of the OCS Supported Know-How multiplied by a fraction, the numerator of which is the total grants received by the Approved Recipient under the R&D Law, and the denominator of which is all research and development expenses of the Approved Recipient; or

(ii) the amount of the grants, plus annual interest as provided by the R&D Law, less royalties actually paid.

The R&D Law does not take into account milestone payments and adjustments to consideration in the sale price. In practice, the OCS tries to apply the present value of the OCS Supported Know-How in determining the redemption fee.

2. Ceiling Regulations

In May 2012, new regulations were approved by the Finance Committee in the Knesset for the Encouragement of Research and Development in Industry (the Maximum Payment for the Transfer of Know-How Pursuant to Section 19B(b)(1) and (2)), 2012, the "Ceiling Regulations" pursuant to the R&D

94. Ĥok le'Eedude Meĥkaar U'pituaĥ Be'ta'asiya [Encouragement of Industrial Research and Development Law], *supra* note 1, § 19B (b) (2).

Law.[95] The Ceiling Regulations set a maximum amount on the redemption fee to be paid upon the sale of OCS Supported Know-How to non-Israeli residents. Until the Ceiling Regulations were adopted, the uncapped redemption fee could have been very large depending upon the value (**V**) of the know-how or the overall value of the transaction. With the adoption of the Ceiling Regulations, if the Approved Recipient sells the OCS Supported Know-How, in whole or in part, or the company is sold in an M&A transaction and ceases to conduct business in Israel following the transaction, then the redemption fee will not be more than six times the grants (**G**) received plus interest (**I**) at LIBOR, for the know-how sold, or the entire amount received, as applicable. If the Approved Recipient will continue to conduct research and development activities in Israel after the transaction with a certain minimum number of scientific and technological staff and for a minimum period of time, the OCS may apply a reduced ceiling amount of up to three times the grants (G) received plus interest (I) at LIBOR for the know-how sold or the entire amount received, as applicable.

3. Depreciation

The redemption fee is subject to depreciation beginning from the end of the second year following the end of the applicable Plan, calculated on a straight-line method, for ten years (*i.e.*, ending twelve years after the end of the Plan). The depreciation applies only to the amounts in excess of the minimum payments (*i.e.*, above the initial grant plus interest).[96]

4. Exchange of Know-How

The Research Committee is authorized to allow a transfer of OCS Supported Know-How overseas in consideration for know-how of similar value developed outside of Israel being brought into Israel. In such cases, no addi-

95. Takanot le'Eedude Meĥkaar U'pituaĥ Be'ta'asiya (Ha'schum Ha'meyravey Le'tashlum Be'ad Ha'avarat Yeda Le'fee Se'eef 19B (b) (1) ve-(2) Le- Ĥok) [Encouragement of R&D Regulations (Maximum Payment Amounts for Transfer of Know-How Under Section 19B (b) (1) & (2) of the Law)], 5773-2012 KT 7182, 199.

96. Ĥok le'Eedude Meĥkaar U'pituaĥ Be'ta'asiya [Encouragement of Industrial Research and Development Law], *supra* note 1, § 19B (g).

tional redemption fee is required.[97]

5. Sale With Exclusive License Back to Approved Recipient

The Research Committee is authorized to allow a transfer of OCS Supported Know-How overseas if the party receiving such Know-How grants a comprehensive exclusive, irrevocable, world-wide license back to the Approved Recipient to exploit the OCS Supported Know-How. In such cases, no additional redemption fee is required.[98]

F. Licensing Arrangements

The R&D Law allows for the promulgation of regulations to approve licensing arrangements with respect to OCS Supported Know-How; however, to date, it has not adopted any such regulations. The OCS has taken the position that any license that in essence grants exclusive, irrevocable, and world-wide rights to exploit know-how (or nearly such broad rights) will be considered a transfer of ownership and treated as such under Section 19B of the R&D Law, with the related redemption fee payment.[99] It is not always possible to determine the full up-front value of a license transaction with contingent milestone payments, and therefore it is difficult to apply the redemption fee formula to a licensing arrangement.

Limited licenses to exploit the OCS Supported Know-How may be granted with OCS approval; however, any developments arising from such licensed work must be owned by the Approved Recipient in Israel. This is often an issue in joint development arrangements within multi-national organizations which share research and development teams. New know-how developed by a team outside of Israel which relies upon OCS Supported Know-How must be owned by the Approved Recipient in Israel, and be deemed an asset of that company. This has tax implications for the Approved Recipient and the

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97. Ĥok le'Eedude Meĥkaar U'pituaĥ Be'ta'asiya [Encouragement of Industrial Research and Development Law], *supra* note 1, § 19B (b) (3).

98. Ĥok le'Eedude Meĥkaar U'pituaĥ Be'ta'asiya [Encouragement of Industrial Research and Development Law], *supra* note 1, § 19B (c).

99. *Ishurim Hamitĥayvim Me'koaĥ Ĥok Ha'mop* [*Approvals Required by Virtue of the R&D Law*], Moital.Gov.Il, http://www.moital.gov.il/NR/rdonlyres/92DF7B5B-C892-41C0-8-EDB-C174D2E490C2/0/yeda5_2013.pdf (last visited Dec. 10, 2013).

multi-national organization of which it is a part.

Limited licenses granting rights to manufacture products of OCS Supported Know-How are subject to Research Committee approval and if to an overseas entity, carry increased royalty rates and payment schedules, as applicable.[100]

IV. Summary and Conclusion

The Israeli legislature has long been proactive in encouraging the technology sector. It has focused its efforts on the main factor where the government has the greatest impact and ability to make a difference – making capital available to research and development companies and making the terms under which such capital investments are made more attractive. The OCS began in the 1960s before the R&D Law was adopted as a funding organ for research and development projects that followed the pioneering spirit of the nascent nation – in agriculture and civilian applications of military R&D.

The R&D Law was adopted in 1984 with certain policy goals that were not entirely in line with a global economy. The "strings attached" to the grants provided by the OCS, required the Approved Recipient to keep the know-how and R&D activity in Israel, thus maintaining engineering and scientific positions in the economy, as well as manufacturing activity. The policy goals of the R&D Law of fostering the local economy, creating jobs, particularly skilled scientific and technological as well as manufacturing jobs in Israel did not always fit with the reality of the Israeli tech sector. The Israeli tech sector has been supported by venture capital which is focused on short term gain, and therefore builds companies for M&A exit strategies. In that constellation, the R&D Law which originally prohibited manufacturing overseas except in exceptional circumstances and had an absolute prohibition on transferring ownership of OCS Supported Know-How was anachronistic. The R&D Law was amended several times to impose increased royalties for overseas manufacturing activities, to allow for the transfer of know-how overseas, and to set ceilings on the redemption fees payable upon such transfer. The current accommodations under the R&D Law impose transactional costs for taking advantage of the low cost grant money of the OCS, but they do allow the Approved Recipient to contemplate an exit transaction with a multinational

100. OCS Guideline, *supra* note 64, § 3.6.

corporation.

In the nearly 30 years since its enactment, the R&D Law has undergone a series of very significant modifications and amendments that have brought it more in line with the market economy in which the technology sector that the OCS is authorized to support. This is indicative of the power and strength of the venture capital community in Israel and the technology sector generally that it is able to successfully lobby the government to change the law so many times.

The OCS' goals of creating and maintaining jobs in Israel is somewhat foiled by the reality of the global economy, the demands of the venture capital community for rapid returns on investment, and the hunger of multinational corporations for innovative new products of the kind produced in Israel. The OCS has adjusted to this reality by increasing the amounts it receives from successful R&D products that are manufactured overseas and from the sale of know-how overseas. It has set a ceiling on the OCS' upside to its investment in the R&D in light of the relatively small capital investment the OCS makes relative to venture capital funds, usually. All these changes demonstrate that the OCS is a dynamic organization that has been able to keep pace with the changes in the market in order to continue to be a relevant source of funding for early stage technology companies.

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