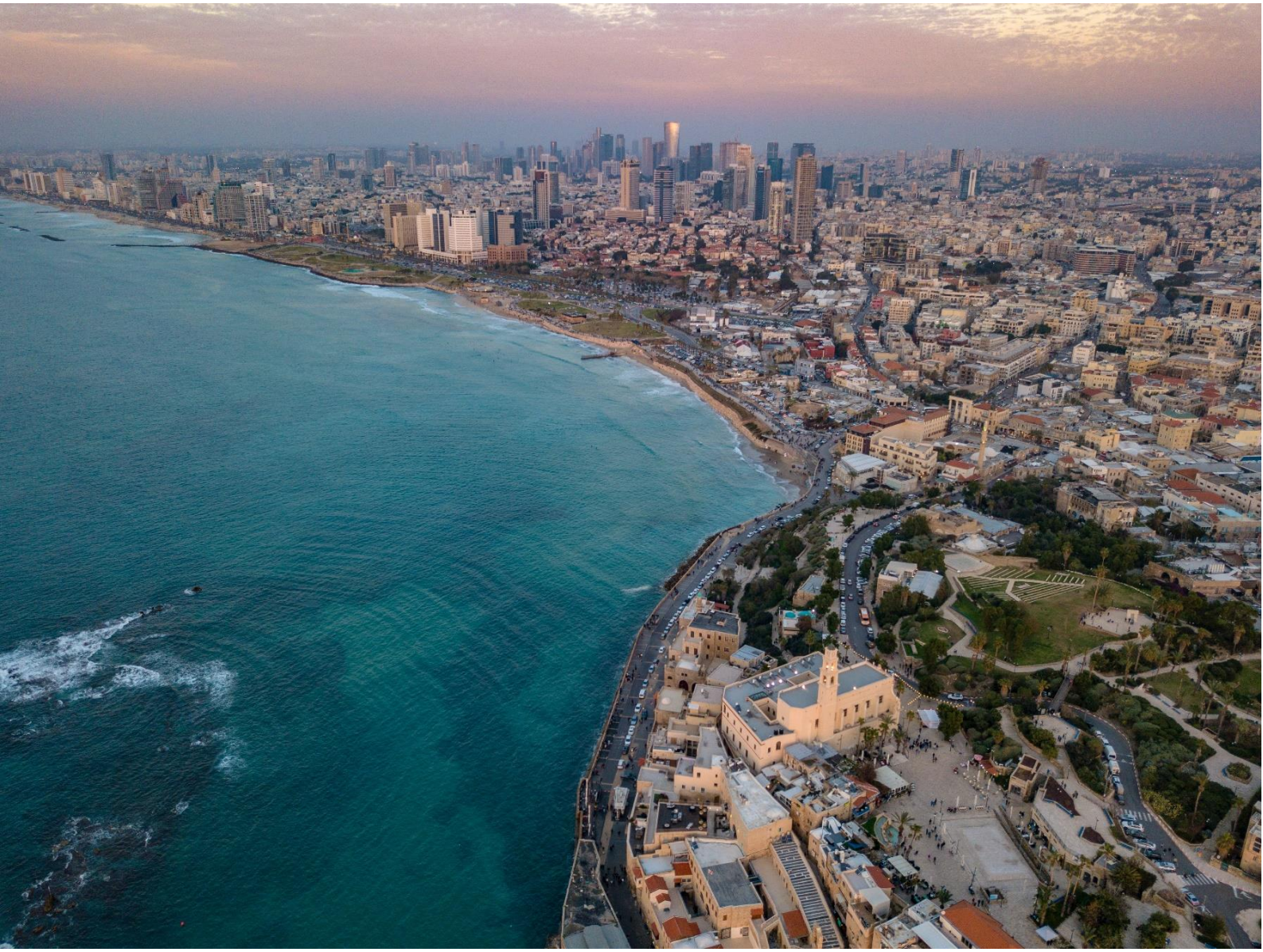
Israel
Country Profile



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Regional Activity Centre for Sustainable Consumption and Production

1. Overview

Quick Facts		
	Population	9,053,300[1]
	GDP per capita	148,401[2]
	10-year average annual GDP growth	x
	CO2 emissions per capita	7.863[3]
	Renewable energy consumption share	3.708%[4]
	Unemployment rate	3.34%[5]
	Global Gender Gap Index 0-1 (gender parity)	0.718[6]

[1] The World Bank, 'Population Total – Israel,' 2019. https://data.worldbank.org/indicator/SP.POP.TOTL?locations=IL accessed august 1 2020.
[2]The World Bank, 'GDP per Capita – Israel', 2019. https://data.worldbank.org/indicator/NY.GDP.PCAP.KN?locations=IL accessed 1 august 2020 .
[3] The World Bank, 'CO2 Emissions – Israel', 2014. https://data.worldbank.org/indicator/EN.ATM.CO2E.PC?locations=IL accessed 1 august 2020.
[4] The World Bank, 'Renewable Energy Consumption – Israel', 2015. https://data.worldbank.org/indicator/EG.FEC.RNEW.ZS?locations=IL accessed 1 august 2020.
[5] CEIC Data, 'Israel – Unemployment Rate,' 2020. https://www.ceicdata.com/en/indicator/israel/unemployment-rate#:~:text=Israel's%20Unemployment%20Rate%20dropped%20to,an%20average%20rate%20of%205.02%20%25. Accessed 1 august 2020.
[6] WeForum, 'Global Gender Gap Report 2020', 2020. http://www3.weforum.org/docs/WEF_GGGR_2020.pdf Accessed 1 august 2020.

2. Policy and Regulatory Framework

Israel has developed a National Green Growth Strategy 2012 – 2020, which got approved by the government in October 2011. The main points in the strategy are; removing obstacles for green growth, promoting cleantech industries, advancing green employment, transitioning to sustainable consumption, transitioning to sustainable industry, and transitioning to a more environmental-friendly business sector.[7] Various stakeholders, experts, and decision-makers have been included in the creation and formulation of the strategy through several round tables combined with an interactive website, that allowed manufacturers, NGOs, local authorities, academics, and professionals outside of these tables to respond. The vital levers for change that were identified through these conversations, were sustainable production, sustainable consumption, and eco-innovation. The recommendations based on these levers included, an integrated pollution prevention and control (IPPC), a green growth knowledge center, green labeling, the promotion of the use of life cycle analysis, green procurement, green taxation, greenwash prevention, locally approved best available techniques (BATs), green employment training programs, and the establishment of a research center focused on the study of materials and waste management, as stated in the Sustainable Production and Consumption Roadmap.[8] Most of these initiatives have been integrated except for the employment training and the research center.[9] One law that has been highlighted under this decision is the integrated environmental licensing law (green licensing law), which aims to reduce the administrative burden of licensing procedures, but is yet to be legislated.[10] Eco-labels have been used by the Israeli Ministry of Environment as an incentive for green business development.[11] Tel-Aviv municipality has established an eco-label for the restaurant industry that is currently adopted on the national level.

According to the OECD report on SME Entrepreneurship Policy in Israel, policies related to SMEs and entrepreneurs are covered within the scope of different ministries and agencies. The Small and Medium Business Agency (SMBA) co-operates with these bodies on the implementation of policies.[12] Besides that, the SMBA is responsible for the design and operation of SME assistance programs, the coordination of organizations involved in promoting the SME sector, the establishment of local and regional centers dedicated to SMEs, the introduction of legislation on SMEs, the establishment of databases based on research on the sector, the creation of additional funds and vehicles of assistance, to lobby to eliminate obstacles facing entrepreneurs. Besides that, it focuses on the implementation and guidance of public relations, and educational programs for the management of SMEs and encouraging entrepreneurial potential among specific segments of the population.[12]

According to the OECD Israel Policy Brief, compared to other OECD countries, Israel raises above-average revenue from environmentally-related taxes as a percentage of GDP.[13] In 2014, the tax revenue related to the environment was 2.91% of the GDP, compared to 2.0% on average among the 34 OECD and 5 partner economies.[14]

The National Resource Efficiency and Environmental Innovation Programme was introduced in 2018 by the Israeli government. An annual budget of €756 million in environmental-

[7] Israel, The Ministry of Environmental Protection, *Green Growth - Connecting the Economy and the Environment in Israel*, 2014.
[8] Israel, The Ministry of Environmental Protection, *Sustainable Consumption and Production Roadmap for Israel 2015 – 2020*, 2015.
[9] Personal Interview with Dr. Ohad Carni, (MoEP) 7 July 2020.
[10] Israel, Ministry of Environmental Protection, *Integrated Green Licensing* (IPPC), 2015.
[11] Israel Ministry of Environmental Protection, Green Label for Products and Services, 2013.
[12] Organisation for Economic Co-operation and Development. OECD Studies on SMEs and Entrepreneurship. *SME and Entrepreneurship Policy in Israel 2016. 2016*
[13] Organisation for Economic Co-operation and Development. Israel Policy Brief, 2016.
[14] Organisation for Economic Co-operation and Development, Environmentally-related Taxes on Energy Use, 2016.

promoting projects, of which €143 million would be invested directly in the circular economy. An additional €15 million would finance assistance to those working on environmental innovation and resource efficiency in the industry.[15]

An "Industrial Symbiosis" project was launched in March 2019, where four companies, with a focus on different geographical regions, shared a budget of about €1.25 million for conducting a pilot with the aim of developing an advanced information system that would help connecting waste producers and potential consumers. The systems that were integrated, were either developed locally or were based on international success-stories. Over 1500 potential customers were identified and about 100 of them were recruited. Based on gathered data, potential symbioses were identified that were expected to save on landfill space and have the potential to generate revenue. According to the Flanders Investment & Trade Survey on circular economy in Israel, the projects are expected to save about 4.5 tons from landfills every year.[15]

According to the chapter on the situation on Israel from the book "Circular Economy: A Global Perspective", circular economy (CE) is still in its beginning stages in Israel. In the past years, the Ministry of Environmental Protection (MoEP) and the Ministry of Economy (MoE) have started with the integration of numerous plans toward achieving CE. The first activities within this domain have been mainly related to waste management and recycling.[16]

Israel has created a national action plan for the circular economy in the industry, designed by the Ministry of Economy. The roadmap focuses on three industrial sectors that have the largest potential to become circular. According to the description of the action plan, these sectors are the construction and infrastructure sector, the packaging sector, and the chemistry and the pharmaceutical sector. Innovation and recycling are horizontally applied to these sectors.[17]

The support tools defined under this action plan are the creation of a circular economy knowledge and consulting center, a support fund for circular projects, a support fund for circular design, industrial symbiosis, and a leadership program. Other active tools already in place are industrial symbiosis projects, a Resource Efficiency Center[18] (launched March 2020), the Institute for Advanced Manufactering[19] (launched March 2020), a Cleantech Innovation lab, a Circular Economy Accelerator, and a Circle Plastics Consortium (launched 2019).[17]**¡Error! Marcador no definido.**

Israel is currently promoting numerous environmental laws; an EPR based law on the European waste directive, ELV legislation, a review of the deposit and packaging laws, and an incentive program for reduction of resource consumption. On the other hand, there is no concrete action on ecodesign.

The Israeli Government Companies Authority, as a unit of the Ministry of Finance, launched a call for all governmental companies to formulate and adopt a "shared value" strategy, working to advance business and sustainable goals in their operations, and will assist these companies in the strategic process to develop such approach.[20]

Several other developments have been taken place in Israel that are worth to mention;

- Currently, collaboration is being built with the government of the Netherlands to co-develop knowledge on circular economy for Israeli policymakers and businesses.
- SwitchMed has launched a training program on green entrepreneurs, where the two best ideas enjoyed an acceleration process of eight months.[21]
- A circular economy project for the plastic sector is about to be launched by UNIDO.

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[15] Flanders Investment & Trade, *Circular Economy in Israel*, Tel Aviv, Flanders Investment & Trade, 2019.

[16] Daskal Shira and Ofira Ayalon. *Circular Economy—Situation in Israel*. In: Ghosh S. (eds) Circular Economy: Global Perspective. Singapore: Springer, 2020.

[17] De Rijksdienst voor Ondernemend Nederland, *The Israeli National Action Plan for Circular Economy in the Industry*, 2019.

[18] Israel Resource Efficiency Center. https://www.rec.co.il/index.php?language=eng accessed on 21 July 2020.

[19] Xinhuanet, 'Israel to set up advanced-production national institute at cost of 9.81mln USD'. http://www.xinhuanet.com/english/2019-06/30/c_138187022.htm accessed 1 August 2020.

[20] Israel Ministry of Finance, *Quarterly Information Letter*, 2019.

[21] European Commission and the European Economic and Social Committee. *SwitchMed Green Entrepreneurship Programme,*2014 https://circulareconomy.europa.eu/platform/en/good-practices/switchmed-green-entrepreneurship-programme accessed on 8 August 2020.

- From next July, green building standards will become compulsory in Israel (5281 – sustainable building, 5282 – energy ratings, 1045 – thermal insulation).

3. Market Demand

According to the Sustainable Consumption and Production Roadmap, the share of public procurement in GDP in Israel is high (10.24% in 2010), which makes the public sector a key player in generating and accelerating the demand for green products and services.[8] Besides that, it could form an example of sustainable consumption practices. Therefore, the government has decided to strive for a minimum of 20% green public procurement out of the total procurement expenditure by 2020. However, according to local experts, there is no recent data available on the level of green public procurement out of the total amount of public procurement.

The Israeli Sustainable Consumption and Production National Action Plan (SCP-NAP) was developed under the coordination of the Ministry of Environmental Protection and Ministry of Economy under the EU-funded SwitchMed program, with advisory services and technical support from the United Nations Environment Programme (UNEP).[22] The plan is part of Israel's endeavor to reach the Sustainable Development Goals under the 2030 Agenda. SDG 12, on sustainable consumption and production, has been used as the directory of the plan. Through multi-stakeholder processes, including the government, private sector, civil society, academia, and media, the plan focuses on connecting the dots.

A series of workshops on sustainable consumption and production policies were held in 2014 as part of the SwitchMed Programme in Israel. Under the guidance of an advisory team from the Israeli Ministries of Environmental Protection and Economy, 8 different workshops including 300 participants from all sectors where organized touching topics such as "Policy Tools for Circular Economy", "Mainstreaming Life Cycle Thinking" and "Towards a Sustainable Infrastructure", based on a year-long scoping review process.[23]

An example of an awareness campaign to stimulate the demand for sustainable products is the MoEP "Let's Think Green" public awareness campaign (2011), which has led to a change in perception and behavior among the Israeli public, encouraging a "green life" strategy with a focus on the economic and environmental benefits of sustainable environmental behavior.[24] The Ministry of Environment plans to launch voluntary agreements with businesses to reduce resource consumption and is planning a levy on plastic packages.

Through conversations with a local expert on sustainable consumption behavior, we found several areas that require attention in order to increase consumer environmental awareness in Israel.[25] One of them is that, at this moment, there no clarity on the definition of sustainable consumer goods and sustainable consumption patterns, which causes confusion at the side of the consumer. Besides that, there is a social and political aspect involved in green consumerism, where sustainable products are perceived to be connected to the "left elite". The third area that could be improved is the location where sustainable consumer goods are sold and the infrastructure in place to access these locations, which tend to be out of reach for the lower deciles. A study on The Relationship and Policy Implications of Socioeconomic Rank and Sustainable Consumption Patterns shows that low-to-moderate environmental involvement was mainly to be found in the high deciles of society.[26] At the same time, high-level environmental involvement was evenly distributed among all deciles. In higher societal deciles, pro-environmental behavior could potentially enhance social status. Where in lower deciles this behavior is not necessarily rewarded. According to the study, some interviewees expressed that it could be seen as inappropriate cooperation with government institutions. The study suggests that there also appears to be a pervasive lack of awareness about what sustainable consumption means and how to implement it on the individual level. This

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[22] UN Environment Program and SwitchMed, *Sustainable Consumption and Production National Action Plan*, 2020.

[23] Israel Ministry of Foreign Affairs and the Ministry of Environmental Protection. *Green Industry Platform, Sustainable Consumption and Production Policies Workshops Summary in Israel*, 2015.

[24] United Nations, *Implementation of Sustainable Development Goals National Review Israel*, 2019.

[25] Personal Interview with Meital Peleg-Mizrachi (expert on sustainable consumption in Israel), 12 July 2020.

knowledge gap is common to participants in all deciles across society. Weaker socioeconomic consumers often do not have direct access to sustainable consumer goods and the infrastructure to participate in sustainable consumption practices, since they mainly live in the periphery where these goods and infrastructure (such as access to recycling facilities or reliable public transport) are not widely available according to the study. This way, it might be more challenging for Israelis with less financial means to adopt environmentally favorable behavior. The study reveals that the lower the level of formal education, the higher the consumption of food products with a greater ecological footprint. Israelis amongst all deciles that participated in the study, rated environmental considerations in the area of energy consumption lower than other competing considerations (e.g., price, quality) when making their consumer decisions for energy-consuming products. Nevertheless, the higher the decile in which a person is ranked, the higher the ecological footprint associated with energy consumption, even though respondents in the higher deciles report greater use of energy-saving measures, such as water-saving contraptions, long-lasting light bulbs, and installation of insulated walls. The study found that the amongst the people that participated in the survey, people with a lower economic status tend to have a larger ecologic footprint when it comes to food and textile consumption, while in wealthier deciles, a higher economical footprint is to be found in the areas of transport and housing. A consumer awareness campaign is recently being considered in Israel but will probably not be launched due to budget cuts.[26]

[26] Peleg-Mizrachi*, Meital and Alon Tal, Caveats in Environmental Justice, Consumption and Ecological Footprints: The Relationship and Policy Implications of Socioeconomic Rank and Sustainable Consumption Patterns*, 2019.

4. Startup and Investment Climate

According to the OECD SME and Entrepreneurship Policy Index, Israel adopted a "Small Government" approach when it comes to fiscal policy, which expresses itself through low taxation together with low government spending.[12] However, the innovation system in Israel is well-developed and receives public support in several ways. Investments are made in the field of human capital, research funds, and tax incentives to stimulate R&D activity in Israel by large multinationals. Besides that, the government runs various programs to support technological innovation and it supported the development and establishment of the venture capital industry focusing on startups in the field of high-tech.

The Israel Innovation Authority is a governmental authority, that is involved in the entrepreneurial and innovation eco-system of Israel. The authority consists of a Startup Division, which targets early-stage entrepreneurial activity through programs and projects, amongst one of them, the renewable energy technology (cleantech) center[27], which supports technological ventures and R&D projects starting from the stages of applied academic research and early-stage entrepreneurship. Other developments under this division are the greenhouse gas emission reduction program and financial support for investment in alternative fuels for transportation. The renewable energy program provides financial support from 50% to 85% of the R&D cost for projects from research to testing stages.

The greenhouse gas emission reduction program provides grants to cover the installation cost of technologies which reduce GHG emissions, with benefits for locally developed technology, which potentially indirectly stimulates the growth of the cleantech industry by increasing demands in the relevant fields.[28] The Israeli cleantech industry is commonly referred to as "a vibrant source of new ideas aimed at solving environmental issues"[29]. Cleantech companies account for approximately 7% of all technology companies in Israel (2019).[30] Nevertheless, according to OECD data, only 4.88% of all Israeli patents are in the field of environmental technology.[30]

Recently, several different initiatives that aim to translate environmental demand to business opportunities have been empowered by large investments. Amongst them a €12.8 million investment for a Resource Efficiency Knowledge center (announced in 2016), aiming to provide support for industrial partners. A budget of €1.2 has been allocated for those who use by-products and waste generated by others in their production processes. An additional €25 million investment has been reserved for resource efficiency. A budget of €3.6 million has been allocated for the Environmental Protection and Sustainability Innovation Lab, which assists companies that are aiming to develop technological innovation for environmental protection.[15]

Next to the activities mentioned above, there are several organizations that foster innovation and are focused on financing green and circular business (projects). A list of organizations, incubators, accelerators, programs, and community centers is shared below in the appendix.

An area of development is the investment in non-tech green entrepreneurship, mentioned as one of the leverage actions in the Roadmap for Scaling Green Business in Israel by SwitchMed.[31]

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[27] Israel Innovation Authority, Renewable Energy Cleantech Technology Center. https://innovationisrael.org.il/en/program/renewable-energy-cleantech-technologycenter#:~:text=The%20Renewable%20Energy%20Technology%20Center,products%20undergoing%20development%20and%20demonstration. Accessed on 21 July 2020.

[28] Hao, Junli, *A Study of CleanTech Innovations in the Israeli Entrepreneurial Ecosystem*, 2018.

[29] PWC Israel, CleanTech.

[30] Bliah, Elior, *Encouraging the Commercialization of Israeli Cleantech*, Jerusalem: Milken Innovation Center 2019. .

[31] Ibaneza, Anna and Claudia Pani. *Roadmap for Scaling Up Green Entrepreneurship*, Israel, SwitchMed 2019.

5. Socio-Cultural Context

With an active culture of innovation, Israel is often referred to as the “Startup Nation”. As pointed out in a study on CleanTech Innovations in the Israeli Entrepreneurial Ecosystem the Israeli character tends to challenge authority, empowered by a high-level of critical thinking. [28] Individuals tend to have strong long-term connections with people from other professions, due to the mandatory military service. These connections could be the force behind cross-industry collaborations and could potentially generate new ideas. Israeli culture is characterized by its entrepreneurial mindset. In 2014, only 10.5% of 4,247 founders were women, that are mainly contributing to the fields of education and knowledge technologies. [28]

The Ira Center for Business and Ben-Gurion University have conducted a study on the Entrepreneurship and innovation ecosystem for a report under the Global Entrepreneurship Monitor (GEM).[32] The study has been carried out with a sample of 2,000 people, including four population sectors, amongst which Veteran Jewish, Jewish Orthodox, Immigrants from CIS countries, and Arab Israeli. This report measured the highest level of fear of failure amongst the nonentrepreneurial population as a factor that prevents people from starting an enterprise now and in the future under the GEM studies that have been carried out in Israel over the past years, which expresses, according to the report, a lack of confidence regarding the establishment of businesses and the ability to survive. The level of fear of failure amongst women was 2% lower than the level of fear of failure amongst men. The fear of failure to start a new business in the non-entrepreneurial population, is significantly lower amongst the Arab Israeli population sector (total average 35.5%), than amongst the other sectors (total average above 60%). Two main factors that are mentioned in this study that limit entrepreneurship in Israel are bureaucracy and entrepreneurship education at schools. Other main findings that are addressed by this study, are the decrease in the Total Early Stage Entrepreneurial Activity (TEA) rate. Nevertheless, an increase was shown in TEA in the Arab Sector in comparison to the years before. Israel ranks 18th out of the 49 participating countries in 2018/2019 on the GEM regarding the TEA. The rate of employees that are involved in entrepreneurial activities (EEA) is far above the global average. According to the study, the EEA level is significantly high amongst the male Orthodox Jewish population sector and lower amongst the female Arab Israeli and Jewish Orthodox population sector. The self-perception of skills and capabilities to start and manage an independent business in Israel is the highest amongst the Arab Israeli population sectors (almost 55%), where all the other population sectors stay below 40%. The amount of people in Israel that agree with the statement that "successful entrepreneurs receive a high status" is far higher than the global average, where Israel ranks 2 out of 47 countries.

Besides the need for industries related to sustainability on a global level, clean and sustainable technologies are vital needs for Israel as well, according to the study on cleantech Innovations in the Israeli Entrepreneurial Ecosystem. Two main areas in the cleantech industry seem to be of high importance for the sustenance of Israel are water technologies and alternative fuels. Cleantech ventures, therefore have the potential to obtain a prominent role in the innovation ecosystem in Israel.[28]

[32] Global Entrepreneurship Monitor, Economy Profile. https://www.gemconsortium.org/economy-profiles/israel-2 accessed on 29 July 2020.

6. Opportunities and Obstacles

	Opportunities	Obstacles
General economic context and investment climate	Venture capital is widely accessible. The innovation authority has mechanisms to support companies at seed stages as well as facilitate connections with multinational corporations. An opportunity for Israel would be support for the scale-up phase for green businesses to enable them to grow.	Financing opportunities for cleantech are getting overruled by the popularity of cyber, communication, and software industries. These types of Hi-Tech companies are often preferred by investors, because they require less upfront capital and have a shorter return period. There are very little multinationals based in Israel, which makes it difficult for companies to make connections with large partners for global opportunities. There is a lack of clarity regarding policy measures related to the environment, where incentives are constantly changing. This creates difficulties for investors to commit to businesses in this sector.
General political context	Israel shares resources with neighbouring countries which creates a political opportunity through environmental collaborations. Offering technologies could have the potential to de-escalate conflict, which makes this domain a strategic priority.	Politically, energetically, and trade wise, Israel functions as an Island, which blocks the possibility for industrial symbiosis or material exchange for recycling which leaves Israel to be self-reliant in developing circular infrastructure or resort to import/export of recycled materials and materials for EoL treatment.
Policy and regulatory (both national and regional/local)	Regulatory impact assessments could be improved. Circular economy is mainly promoted by the ministry of economy, increasing cross-ministerial effort would be an opportunity. A post-covid strategy could be an opportunity to promote circular economy	Extended producer responsibility policies are not on the same level as European Standards No policies or legal mechanisms on eco-design. Support to end-of-life infrastructure is low. Difficulties obtaining licensing and permits. The new unified permitting law does not allow the MoEP to offer exemptions for SMEs from proving environmental compliance - even when demands are not relevant to SMEs, which suppresses the development of innovative solutions. The license and permit system are largely managed at the local level by municipalities. Approximately 40% of companies need a license in Israel, but one-quarter of them does not have one (as of 2016).[12] Local authorities have a small playfield for enacting environmental legislation, which prevents creating local economies and prevents creation of solutions that could be tailored to specific regions (e.g. waste separation).
Subsidies and fiscal benefits	Carbon tax is in the process. CE principles are not yet included in criteria for government incentives.	There are no taxes or incentives on resource use (excepts nylon bags and bottles and tailor-made legislation for specific industries), No taxes or incentives for avoiding waste. Green incentives for industry are either for innovation or R&D, nevertheless, Israel has very minimal standards for these green incentives, leaving companies without real incentives to transition to greener practices.

Public procurement	The share of public procurement in GDP is high. The government has expressed desire increase the share of green public procurement. Can be expanded to other authorities and practices	Legal mechanisms are not enforcing green public procurement and it is not monitored (no data is currently available on the share of green public procurement).
General knowledge and awareness about CE	The integration of financial and environmental benefits in the concepts of circular economy as a game-changing strategy rather than a nice-to-have recycling tool. Clean and sustainable technologies are vital for the survival of the country.	
Consumer demand (linked to previous point)		There is no clarity on the definition of sustainable consumer goods. Sustainable consumption patterns are frequently connected to the politically left elite. Sustainable consumer goods are not always easy to find, especially for people living in the periphery.
Public-private partnerships	Integrating circular economy PPP at the local level, through the support of the ministry of interior	Not much experience in large scale PPP of environmental projects. In the local level there is a lack of financial literacy to conduct such projects
Support programs or platforms for green and circular businesses	Promote CE under stakeholders/authorities in the innovation ecosystem of Israel. There are many opportunities for international exchange. Multinational are coming to Israel to scout solutions and are also looking for CE solutions/	The level of sophistication of support programs is low.
Professional training and education on CE / Skilled labour		According to the OECD report on SME and Entrepreneurship policy in Israel, there is a lack of skilled workers/ weak vocational educational training, a lack of national entrepreneurship educational strategy, and a lack of knowledge and expertise amongst entrepreneurs.[12]
Specific economic sectors	With over 600 companies and start-ups in Cleantech, Israel has gained the status of a high-quality international player in the fields of environmental protection, agriculture, renewable energy, and water treatment. Out of the 1 million t plastic waste that Israel generates each year, merely 6% gets recycled and only less than 50,000 t of recycled plastic resins are annually produced. Nevertheless, demand for recycled resins from the local plastic industry is growing and reached approximately 120,000 t in 2019. Restructuring the plastic waste value chain could have a drastic impact. [33]	Lack of market attention to non-high-tech sector and therefore business creation in this field..
Other socio-cultural factors (incl. gender issues)	Strong innovation climate and entrepreneurial spirit.	As shown in Israels National Report for Habitat III[34], there are existing differences and conflicts between rural and urban areas. Strong municipalities have the capabilities and finance to effectively govern their cities, while the weaker and peripheral municipalities are struggling with their independence. There is no framework for intra-cooperation between municipalities and there is a large disparity regarding social inclusion and equity between the centre and periphery and between sectors (where the Jewish-Israeli population tends to live in the central

[33] SwitchMed, MedTest III- Contributing to be a more circular plastic industry in Israel 2020. https://switchmed.eu/wp-content/uploads/2020/04/MED-TEST-III-Israel_plastic_sector_digital.pdf

[34] Israel, The Ministry of Construction and Housing, *Israel National Report for Habitat III*, 2016. http://habitat3.org/wp-content/uploads/Israel-National-Report-Final-1.pdf

		areas and the Arab-Israeli population in the periphery). There are large differences in financial standing between municipalities. More than 50% of the population works in the Tel Aviv (Dan) Metropolitan area, with less opportunities for employment in the periphery. There is an increasing fear if failure when starting businesses.
Other commercial or legal challenges		Tight product market regulations, which makes it difficult for new companies to enter certain markets. The small market is not inviting to foreign companies with green solutions. Large variation of start-up density across cities/regions within Israel.
Available technologies and infrastructure		Lack of infrastructure for separation and recycling and economic signals for source reduction are not ideal (no PAYT, tipping fee too low, etc).

7. Impact Indicators and Other Data

Topic	Numbers	Source
Green/CE companies	According to the database of Start-up Nation Central (SNC), there are 6,303 Israeli Technology companies. Among them 466 are engaged in environmental technologies in the field of water, energy, environmental services and materials (not including AgriTech).	https://milkeninnovationcenter.org/wp-content/uploads/2019/09/123-ELIOR.pdf
R&D	Israel is also known to spend the highest percentage of its GDP on R&D in the OECD world, at 4.9% as compared to 2.7% by the US. 90% of this budget is spent on Hi-Tech industries.[28]	https://reap.mit.edu/assets/Junli-Final.pdf
Waste	According to an article in the economic daily Calcalist (April 2019), about 5 million tons of construction waste are produced per year, but only about half a reach regulated facility. The payment model in the industry encourages waste carriers, some of whom seem to belong to criminal organizations, to dump garbage in open spaces and nature sites and cause significant environmental and economic damage.	https://www.flandersinvestmentandtrade.com/export/sites/trade/files/market_studies/2019-Israel-Circular%20economy%20paper%20website_0.pdf

8. Appendix

8.1 List of Interviewees

Name	Role and Organization	Date of Interview
Meital Peleg-Mizrachi	Experst on consumer awareness	12.07.202
Dr Ohad Cohen	MoEp	07.07.2020

8.2 Research and programs related to environmental matters

Name	Link
Ben Gurion University of Negev; The Ben-Gurion National Solar Energy center.	https://in.bgu.ac.il/en/pages/default.aspx https://in.bgu.ac.il/en/solar/Pages/default.aspx
The Hebrew University of Jerusalem	https://en.huji.ac.il/en
Tel Aviv Universityl The Gordon Center for Energy Studies,	https://english.m.tau.ac.il/renewable_energy
Weizmann Institute of Science, Department of Environmental Sciences and Energy and Institute for the Energies and Applied Research	https://www.weizmann.ac.il/pages/department-environmental-sciences-and-energy-research-2002
Technion, The Grand Technion Energy Program	https://chemistry.technion.ac.il/grand-technion-energy-program/
Neaman Institute	https://www.neaman.org.il/EN/Home
Arava Institute for Environmental Studies; Center for Renewable Energy and Energy Conservation	https://arava.org/arava-research-centers/center-for-renewable-energy/
IDC Herzliya; Institute for Renewable Energy Policy	http://portal.idc.ac.il/en/main/research/irep/pages/aboutus.aspx
The Jerusalem Institute for Israel Studies (JIIS)	https://jerusaleminstitute.org.il/en/
NOFAR program/KAMIN porgram	https://innovationisrael.org.il/en/program/promoting-applied-research-academia-nofar-kamin

8.3 Organizations that provide financing support to green innovation

Name	Link
Yad Hanadiv	https://www.yadhanadiv.org.il/
Capital Nature	https://capitalnature.com/
Terralab Ventures	http://www.terravp.com/
Hutchison Kinrot	https://hutchisonkinrot.com/
Impact First Investments	https://impact1st.com/
Israel CleanTech Investment	https://icv.vc/portfolio/
Social Finance	http://www.social-finance.org.il/

8.4 Examples of support mechanisms that stimulate green business development

Name	Link
GreenUp City	https://www.greenupcity.com/
TheHive by Gvahim	https://www.thehivebygvahim.org/
2BFriendly	https://2b-friendly.com/english/
Israel Innovation Institute	https://www.israelinnovation.org.il/
EcoMotion	https://www.ecomotion.org.il/
Tech4Good	https://www.techforgood.co/
Minga	https://www.minga.co.il/
ESCO Center	https://esco-center.co.il/about-esco/
Social 8200	https://www.8200impact.com/
The Elevation Academy	https://elevation.ac/
ISEMI	http://www.entrepreneurship-isemi.com/
The Weitz Center	http://www.weitz-center.org/
Circular Economy IL	https://circulareconomy.co.il/about/
The Innovation Labs Program	https://innovationisrael.org.il/en/program/innovation-labs-program
The Ideation Incentive Program (Tnufa)	https://innovationisrael.org.il/en/program/ideation-tnufa-incentive-program
The Early Stage Company Incentive Program	https://innovationisrael.org.il/en/program/early-stage-companies-incentive-program

8.5 Relevant organization related to green and circular economy innovation and business development

Name	Link
Heschel Sustainability Center	https://www.heschel.org.il/heschelen-media
R2PI	http://www.r2piproject.eu/
The Afeka Institute of Circular Engineering and Economy	https://www.afeka.ac.il/
Hiriya	https://www.hiriya.co.il/eng

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