

Science Diplomacy of the EU members states in Israel – the Startup Nation – with a special regard to the V4 countries

SZABOLCS SZOLNOKI¹, ÁRPÁD PAPP-VÁRY²

Abstract: Since the global economic crisis in 2008 showed that classical western capitalism was not able to provide rapid and stable growth, implementation of new strategies is required (Jacobs, Mazzucato, 2018). Recognizing this need, forward-thinking nations make efforts to increase the productivity of domestic-owned enterprises through innovation and the use of new technologies. The goal is to move economic players towards the production of higher added value and increased efficiency, which can ensure sustainable economic growth over the long term. In the age of globalized markets and dependency on international economic trends, science diplomacy and country (recently metropolitan regions') brands have become a key factor. Science diplomacy has various definitions. A decade ago, the Royal Society and the American Association for the Advancement of Science identified three main types of activities: science in diplomacy; diplomacy for science; science for diplomacy. Nevertheless, it is undergoing a continuous transformation from a "presenting results of the past" approach to a "business-oriented, future result generating" approach. With the help of science diplomacy in introducing nation branding strategies, attracting foreign direct investment (FDI), individual talents, entrepreneurs and researchers to settle down, and fostering the establishment of research and development centers and high value-added workplaces are all heavily important goals. Israel is a great example for well-designed branding activities and a never running out storehouse of best practices. Numerous governmental and non-governmental players are forming a mature ecosystem aimed at maintaining and developing the Startup Nation brand. The high-tech export of the 72-year-old, 20,000 sqm and 9-million citizen state represented over 45% of the 102 billion USD in total exports of goods and services in 2017. The number of startups is over 6200 and more than 340 multinationals have research and development centers in the country. The outstanding performance and impressive innovation based country brand of Israel – the "Startup Nation" urges diplomatic missions to establish science diplomacy and innovation agencies, to appoint specialized diplomats and to set up bilateral funds. A peculiar type of tourism has also been created by the massive growth of study tours – governmental, corporate and scientific, expert delegation visits partially initiated by innovation and trade attachés (Lautman, 2015). The Authors' study strives to outline the aspirations of scientific and technological cooperation activities of the EU member states in Israel with an emphasis on the V4 countries. Based on the Authors' ecosystem visits, personal interviews and secondary information, their study

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attempts to outline an overall picture about the innovation dominated elements of the Israeli Public Diplomacy (Hasbara), the science diplomacy activities of the diplomatic missions of EU member states in Israel, especially the V4 cooperation, which has created a Working Group in Research, Development and Innovation together with Israel. Authors believe that exploring the science diplomacy of Israel can unfold several good practices that can be implemented in the V4 region as a tool of high value-added investments' promotion.

Key words: science diplomacy; international cooperation; V4 region; Israel; startup nation

JEL Classification: F50, F53

1. Introduction

Science diplomacy is an excellent tool for developing good relations among nations. Joint research programs, knowledge sharing trainings, scientific exhibitions and exchange programs – just to mention a few activities, can contribute to mutual understanding of different cultures. Furthermore, the bilateral and multilateral applied research, development and innovation projects may end in monetized results. Shared patents, scientific and business outcomes often increase pride and strengthen ties – not only among the collaborative team members, since these activities provide valuable inputs for news articles and PR campaigns that may influence the public. It is non-negligible that governmental administration personnel can establish effective professional connections by the coordination of tasks. Based on the history of former duties, the evolved trust is most likely to flow through to other areas of diplomatic relations.

Israel, the world's 5th most innovative nation according to Bloomberg's latest ranking, the country which is often called the "Startup Nation" or "Silicon Wadi" is much less divisive in the eyes of the international community when the topics are innovation, scientific and high-tech cooperation (Bloomberg, bloomberg.com, 2019). Of course, political positions manifest themselves within the field of science diplomacy, too, but are much less detectable. Even trade and commercial affairs are affected more largely – for instance, by applying government directive special labeling for settlement products.

In the field of academic relations, we have to mention that Israeli organizations located in the West Bank (pro-Israeli term: Judea and Samaria; pro-Palestinian term: occupied territories), such as Ariel University in North Israel are not eligible for EU grants (for example Erasmus+ or Horizon 2020 program). The Boycott, Divestment and Sanctions (BDS) campaign has a specific sub-campaign launched in April 2004 – called the Palestinian Campaign for the Academic and Cultural Boycott of Israel (PACBI). The academic boycott has achieved partial success among a few organizations from the US to South Africa, but it did not jeopardize

and freeze many organizations – the attempt to isolate the Israeli academic community failed (Forbes, forbes.com, 2019).

Twenty-seven members of the European Union (including the United Kingdom) have bilateral governmental level agreement on cooperation related to science – in many cases together with culture, science and education. Eighteen countries are involved in an industrial R&D cooperation program with Israel which provides funding for joint applied research and market-oriented projects. Our study focuses on the bilateral and multilateral agreements of the Visegrad Group (V4) countries – Hungary, Slovakia, the Czech Republic and Poland.

The aim of our study is to provide a descriptive summary of the V4 – Israel relations in the scientific and high-tech field and to draw attention to the importance, versatility and practical usefulness of science diplomacy of small countries that are captured in the prison of geography. Due to limitations of this article the authors did not examine several challenges related to this topic, for example the yet not defined economic philosophy of internet age.

2. Science diplomacy and nation branding – soft super-power in international relations

Science diplomacy is considered apolitical; it addresses important issues which are relevant to all societies, furthermore, it can contribute to various goals of geopolitics and geo-economics. Since it is a greatly empowering instrument of soft power and country branding, science diplomacy is one of the most relevant and recognized elements of public diplomacy today (*Figure 1*).

Israel is a great example for well-designed science diplomacy and branding activities and provides many interesting good practices for the V4 countries. Numerous governmental and non-governmental players are forming a mature ecosystem aimed at maintaining and developing the Startup Nation brand. The high-tech export of the 72-year-old, 20,000 sqm and 9-million citizen state represented over 45% of the 102 billion USD in total exports of goods and services in 2017.

Data became the new oil and thanks to the World Wide Web, low-cost, high-yield, export-oriented products targeting the global market can be instantly sold without the need for containers, packaging materials, complicated customs procedures and insurances (Csizmadia, 2016). It soon became clear that investing in innovation, research, development and software engineering has enormous economic potential – not to mention the contribution to Israel's national security capabilities.

Israel is the home of networks and platforms. This is the case with country branding too – all the actors working professionally on the positive international

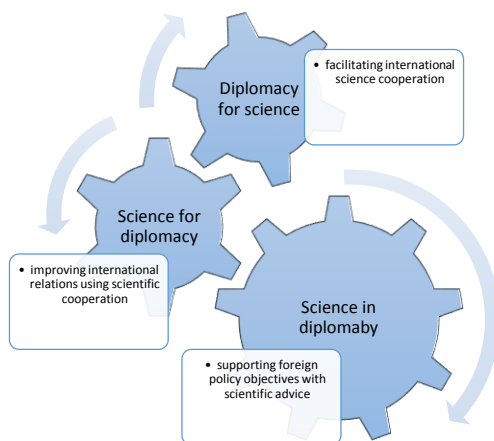


Figure 1. Definition of science diplomacy by the Royal Society and the American Association for the Advancement of Science in 2010

Source: Edited by the Authors.

perception of the “Startup Nation” and “Silicon-wadi” are divided into informal and formal networks. Their nation branding strategy is, on the one hand, an immense support in attracting foreign investments and talents. On the other hand, it proved to be an excellent solution to fight against the negative perception of the Middle East and Israel.

Science diplomacy is done mostly but not only by specialized and well-prepared attachés. The Israeli Ministry of Foreign Affairs (MFA) also puts a strong emphasis on the process of training their diplomats. During the Foreign Service, they can contribute to the promotion of the innovative-economy-focused country brand at their diplomatic missions. In addition, foreign diplomats accredited to Israel are also involved in innovation-oriented country branding programs organized by the MFA.

3. Science diplomacy in the Startup Nation – Cooperation of the European Union and the Members States with Israel

Israel has a long history in EU partnerships and funding programs – the state as the first non-European country which joined has been a partner in the research and innovation framework programs since 1996. The current, so-called Horizon 2020 program with an approximately 80 billion EUR budget for 7 years is the largest research and innovation program in the world. One of the most spectacular and effective EU-Israel scientific cooperations is realized in its framework. From the

beginning of the program until the end of 2018, grants of over 742 million EUR total value have financed 1062 Israeli projects. Over 400 Israeli companies and researchers won Horizon 2020 grants in 2018 and received 180 million EUR funding from Brussels (Delegation of the European Union to Israel, eeas.europa.eu, 2019).

The next framework program named Horizon Europe, according to the Commission's proposal, is remarkably ambitious with its 100 billion EUR budget. The role and share of Israel in the program is still not clear since the EU plans to concentrate innovation efforts on European beneficiaries rather than associated members. Israel invests some 1 billion EUR into the Horizon2020 program and receives around 1.5 billion EUR in grants for R&D projects. Thirteen members of the European Parliament (MEP) visited Israel in November 2018 and during their ecosystem study tour, they had meetings with Israeli governmental representatives. Based on the feedbacks and the press articles about the MEPs' visit their conclusion was supportive. A provisional agreement on Horizon Europe was reached by the European Parliament and the Council of the EU in March and April 2019. The provisional agreement was endorsed by the European Parliament on 17 April 2019, thus its outcome was still unknown at the time this study was written (Globes, en.globes.co.il, 2018).

Israel is also a partner in the EUREKA network since joining the program as a full member in 2000. Over 40 countries are members of the publicly funded intergovernmental network, a leading open platform for international cooperation in innovation. As one of the most active countries in the program, the country was elected to be the chair of the program for 2010. Israeli companies take part in more than 10% of the projects (Science Business, sciencebusiness.net, 2011).

Israel participates in the Erasmus + Education Cooperation Framework Program, which contributes, inter alia, to EU-Israeli researcher relationships through joint projects and exchanges – 177 winning projects in 2017, 1322 Israeli travelers to Europe and 1064 European to Israel (European Commission, ec.europa.eu, 2018).

International cooperation programs can contribute to increasing the productivity of domestic-owned enterprises through innovation and the use of new technologies. To achieve these goals, many countries have created their own bilateral programs with Israel. Twenty-seven EU Member States (including the United Kingdom) signed bilateral research, development and innovation agreements with Israel. In many cases, the main framework for cooperation is publishing calls for proposals financing applied research. Between Hungary and Israel, the seventh call for proposals for joint R&D projects has already been published. In 2019, based on the agreement of the Israeli and Hungarian Prime Ministers, the budget has been increased to 3+3 million EUR.

Our study focuses on the Visegrad countries. Since the Heads of States have recognized the importance of exchanging best practices in research, development and innovation, their cooperation – both on bilateral level and as a group is emerging with the most innovative nations, and Israel is among them. The goal is to move the V4 regions' economic players towards the production of higher added value and increased efficiency, which can ensure sustainable economic growth over the long term. With the help of such international programs, company representatives and experts from the region can greatly benefit from learning more about innovation management and entry strategies to the global market.

The five countries have established a working group as a follow-up of the decision made by the Prime Ministers of the Visegrad countries and the State of Israel at the V4-Israel Budapest Summit on the 19th of July, 2017. Their aim is to deepen their partnership in building innovative and creative economies. The task of the Working Group is to identify relevant cooperation areas and launch concrete projects. The first meeting's initiatives concentrated on mobility, training of young entrepreneurs, RDI knowledge sharing, capacity building for SMEs and technology transfer (Department for Science Diplomacy, tdf.kormany.hu, 2017).

The Visegrad countries (V4), the State of Israel and the International Visegrad Fund (IVF) signed a Memorandum of Understanding on Training Cooperation in the Field of Innovation in Jerusalem on June 18, 2018. The document is the very first result of the multilateral cooperation in the field of innovation. By agreement in December 2018, a three-week-long training program offered short-term, intensive courses for pre-selected entrepreneurs and incubator managers to familiarize themselves with the best practices of the excellent Israeli innovation ecosystem (Department for Science Diplomacy, tdf.kormany.hu, 2018).

Examining the topics and dates of the agreements signed by the Visegrad countries and Israel on a bilateral level we can declare that the first period in science diplomacy relations was in the early 1990s after the dissolution of the Soviet Union when the direct diplomatic ties were re-established.

The second period was between the late 2000s and early 2010s when the innovation ecosystems of the V4 countries started to flourish and their hunger for knowledge, skills and international cooperation in RDI management was increasing. Applied research and joint R&D programs with dedicated budgets were established at that time.

In a few years, we will be able to tell if the third generation started in 2017/2018 or not. The V4 countries, the International Visegrad Fund and the State of Israel have signed and implemented a successful training program for 27 entrepreneurs and ecosystem managers (Izraelinfo, izraelinfo.com, 2018). In case the extent and depth grows, e.g. by organizing complex training and knowledge sharing programs for bigger groups on a regular basis and/or by creating a five-state multilateral funding program, the third period of relations can be identified.

One thing is certain – V4+Israel format will (and should) never replace the bilateral agreements and programs, however, their improvement in specific topics and industries is mutually beneficial for all the participants and their stakeholders (*Table 1*).

Table 1. V4 bilateral and multilateral RDI-related agreements, self-edited

COUNTRY	TITLE OF AGREEMENT
Czech Republic	Joint Declaration by Deputy Prime Minister for Science, Research and Innovation of the Czech Republic and the Ministry of Science, Technology and Space of the State of Israel on Cooperation in the Field of Research and Development (2014)
	Agreement between the Government of the State of Israel and the Government of the Czech Republic on Bilateral Cooperation in Private Sector, Industrial Research and Development (signed in 2009 renewed in 2017)
	Work Plan for Support of Czech-Israeli Joint Projects for the Years 2019-2022 on scientific cooperation (signed in 2012, renewed on 2018)
	Programme of Co-operation in the Field of Education, Science and Culture between the Government of the Czech Republic and the Government of the State of Israel for the Years 2012 – 2015 (signed in 2011)
	Agreement between the Government of the Czech and Slovak Federal Republic and the Government of the State of Israel on Cooperation in the fields of Culture, Education and Science (signed in 1991)
	Agreement between the Government of the Czech Republic and the Government of the State of Israel on co-operation in the fields of health and medical science (signed in 1995)
Hungary	Agreement between the Government of the State of Israel and the Government of the Republic of Hungary on Cooperation in the Field of Culture, Education and Science (signed in 1991)
	Agreement Between the Government of the State of Israel and the Government of the Republic of Hungary on Bilateral Cooperation in Private Sector Industrial Research and Development (signed in 2009)
	Joint Declaration of Intent in the Field of Innovative Industry Development between the Government of the State of Israel and the Government of Hungary (signed in 2017)
Poland	Agreement between the Government of the Republic of Poland and the Government of the State of Israel on Cooperation in Culture, Science and Education (signed in 1991)
	Agreement between the Government of the Republic of Poland and the Government of the State of Israel on Economic, Scientific and Technology Cooperation in the fields of agriculture and food industry (signed in 1991)

COUNTRY	TITLE OF AGREEMENT
	Agreement between the Government of the Republic of Poland and the Government of the State of Israel on Cooperation in the fields of Health and Medicine (signed in 2006)
	Cooperation Plan to the Agreement between the Government of the Republic of Poland and the Government of the State of Israel on Cooperation in the fields of Health and Medicine for the years 2011–2015 (signed in 2011)
	Agreement between the Government of the Republic of Poland and the Government of the State of Israel on Cooperation in Industrial Research and Development (signed in 2014)
Slovakia	Agreement between the Government of the Slovak Republic and the Government of the State of Israel on cooperation in private industrial research and experimental development in the process of coordination (signed in 2011)
	Agreement between the Government of the State of Israel and the Government of the Czech and Slovak Federative Republic on Cooperation in the fields of Culture, Education and Science (signed in 1991) - Work Program for Scientific and Technological Cooperation between the Ministry of Education, Science, Research and Sport of the Slovak Republic and the Ministry of Science, Technology and Space of the State of Israel (signed in 2019)
V4+Israel	Memorandum of Understanding on Training Cooperation in the Field of Innovation

Source: Israel Ministry of Foreign Affairs, mfa.gov.il, 2019.

4. Conclusion

The Authors of the article share the view about the potential influence of science diplomacy and nation branding in international relations, and at the same time, they are aware that it should not be overestimated or mystified, but rather it should be viewed as an important, but not the only and almighty skeleton key in the toolbox of diplomacy. From their perspective – formed after several study visits, interviews, and analysis of modern geopolitical codes and statements by heads of opposing states – placing technological supremacy in the spotlight serves the targets of geopolitics and geo-economics.

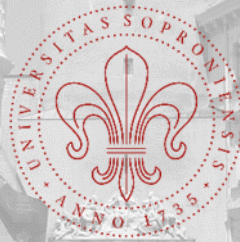
Some states are miles ahead of other developed ones, and there is no shame in learning about their best practices. Israel is among the frontrunners – one of the most innovative countries in the world, owner of the Startup Nation Brand, famous all over the world for its combat capability, intelligence and secret services – despite its indigence in natural resources, small size in land and population, lack of strategic depth, and constant break-in attempts at the borders (Marshall, 2018).

The study reviewed the major agreements and latest activities in science diplomacy relations of Israel and the Visegrad countries – the Czech Republic, Hungary, Poland and Slovakia. The Authors foresee moderate and judicious broadening and deepening progress in the cooperation. They believe that the activities will focus on knowledge sharing, trainings, and will be characterized by easy commitment. Multilateral grants and funding programs are not necessary – on one hand, their contribution to the core goal is not strong enough and such a program would be a competitor of the bilateral funds. Nevertheless, Horizon 2020 and other EU funds may be suitable for five-country R&D partnerships. The authors remind their readers that science diplomacy in international relations is dynamically growing and is in the state of continuous renewal, thus it raises plenty of exciting research questions although it is and will remain a tool and not a goal in itself.

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