

# BIRDS MISSION STATEMENT

To stimulate promote and support industrial R&D of mutual benefit to Israel and the U.S.

# **EXECUTIVE DIRECTOR'S MESSAGE**



It is difficult to find the right words to summarize the year 2020. We have seen and continue to see much health related suffering and economic distress that has severely interrupted many work environments with huge job losses and unemployment.

The COVID-19 crisis has caused us to rethink many aspects of our lives, both work-related and personal. Like many others, the BIRD Foundation's team was forced to adapt rapidly in order to continue, without interruption, fulfilling its mission of supporting U.S.-Israel collaboration.

The positive, and somewhat surprising results of our hard work this past year are reflected in the number and quality of submissions we received to the past five funding cycles (for the four different programs) held in 2020. For example, the submissions to the BIRD June and December cycles increased by about 40%. This boost may be related to the sudden lack of funding for high risk technologies. The submission of a BIRD proposal requires a partnership between a U.S. and an Israeli company which comes with its own unique challenges. Therefore, it was especially surprising to see how quickly the U.S. and Israeli companies adapted in the past year and were able to build their partnerships and prepare joint proposals often without ever meeting in person due to COVID restrictions.

In the beginning of March 2020, just as Israel was closing its borders due to COVID-19, the U.S.-Israel Energy Center Executive Committee convened in Washington, D.C. to select the winners of the first Call for Proposals. The process was very competitive resulting in three U.S.-Israel consortia winning approximately \$30M in grants for their

5-year programs (see page 13). The three consortia initiated their programs in August-September, 2020. A second Call for Proposals, focusing on cybersecurity for energy infrastructure, was published in 2020. The winning consortium will be announced in the spring of 2021.

How the situation will develop in 2021 is still unknown. Will the "Vaccine Revolution" (the name coined by Time Magazine in its January issue) bring us back to in-person events? It has been ten months since the last in-person event we attended in Washington, D.C. and we are looking forward to networking with people in person rather than virtually.

An Impact Study performed during the first half of 2020 revealed ten major benefits generated by the BIRD Foundation (see page 16). Two of these include: (1) contributions that have improved partnerships between U.S. and Israeli entities; and (2) support of innovative technologies. The BIRD Foundation is constantly looking for ways to enhance its contribution to partnerships and innovation as demonstrated by the formation of sector specific programs – BIRD Energy (pages 10-11), BIRD HLS (page 14) and the U.S.-Israel Energy Center (pages 12-13).

Looking towards the future, COVID-19 has significantly raised the interest in U.S.-Israel cooperation in health technologies within the private sector and among policymakers. New, recently approved U.S. legislation, has opened up a new opportunity for the establishment of a program to foster cooperation between the U.S. and Israel in a wide range of health-related technologies ("BIRD Health").

I wish to thank the BIRD Governors for their commitment and support. During this past year, the Board convened numerous times to support new initiatives and continue to foster U.S.-Israel collaboration without disruption.

# **BOARD OF GOVERNORS**

The Board Of Governors meets semi-annually – every June in the U.S. and every December in Israel. Each government has three representatives on the board.

## **U.S. GOVERNORS**



DR. WALTER COPAN | co-Chair
Undersecretary of Commerce for Standards
and Technology and Director of NIST
Department of Commerce



DR. JONATHAN MARGOLIS
Deputy Assistant Secretary
Bureau of Oceans, International
Environmental and Scientific Affairs
Department of State



MR. ANTHONY MARCUS
Director
Middle East and North Africa
International Affairs
Department of Treasury

#### **ISRAEL GOVERNORS**



DR. AMIRAM APPELBAUM | co-Chair Chief Scientist Ministry of Economy and Industry Chairman, Israel Innovation Authority



MR. DAVID LEFFLER
Director General
Ministry of Economy and Industry



MS. KEREN TERNER EYAL
Director General (until October 2020)
Ministry of Finance



MS. MOJDEH BAHAR | co-Chair (starting January 2021)
Associate Director for Innovation and Industry Services - NIST
U.S. Department of Commerce

# **BOARD OF GOVERNORS**

Designees who have acted on behalf of the Board during 2020

Ms. Yifat Alon-Perel Israel Embassy, Washington, D.C.

Dr. Lev Drucker Israel Ministry of Finance

Mr. Gil Erez Israel Ministry of Economy and Industry

Advisors to the Board

**Dr. Harry Hertz** 

Dr. Phillip Singerman

# Joining the Board meetings during 2020 were:

Ms. Mojdeh Bahar NIST, U.S. Department of Commerce

Mr. Gregory Basile U.S. Department of Treasury

Dr. Ami Ben Shalom Israel Innovation Authority

Mr. Joshua Cohen Israel Embassy, Washington, D.C.

Mr. Christopher Green U.S. Embassy, Jerusalem

Ms. Nofar Hamrany Israel Innovation Authority

Mr. Avi Luvton Israel Innovation Authority

Mr. Mike Molnar NIST, U.S. Department of Commerce

Dr. Claire Saundry NIST, U.S. Department of Commerce

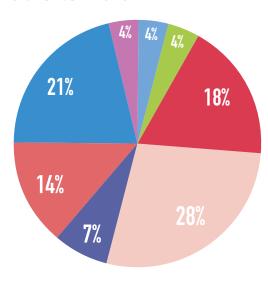
Mr. Israel Shamay Israel Innovation Authority

Dr. Riju Srimal U.S. Department of State

Dr. Tom Wang NIST, U.S. Department of Commerce

# **ACTIVITY SUMMARY**

#### Statistics - 2020



## **Approved Projects**

Sector	Total
Agrotechnology	1
Communications	1
Electronics/Software	5
Energy, Water, Envir. *	8
Healthcare IT	2
HLS & Cyber **	4
Life Sciences	6
Other	1
Total	28

<sup>\*</sup> includes 8 BIRD Energy projects

## Financial Summary - 2020

		Inco	Gr	ant		
	Endowment		Repayments		Payments	
	Year (\$M)	Cum. (\$M)	Year (\$M)	Cum. (\$M)	Year (\$M)	Cum. (\$M)
2012	7	243	3	96	6	301
2013	8	251	3	99	8	309
2014	8	259	3	102	10	319
2015	7	266	2	104	10	329
2016	7	273	1.5	105	10	339
2017	8	281	0.9	106	7.4	346
2018	8	289	2.4	109	8.7	355
2019	8	297	1.9	111	7.8	363
2020	8	305	2.2	113	8.8	372

#### Income

BIRD's annual income is comprised of interest on the Endowment Fund and Repayments from companies who have participated in projects that were successful. That annual income is at a level that allows BIRD to meet all its financial obligations.

Since its inception, BIRD has received interest of approximately **\$305** million on the Endowment Fund and Repayments of approximately **\$113** million from successful projects. Over that period, Grant Payments to companies have reached approximately **\$372** million (all amounts are nominal, not adjusted to inflation).

## **Activity Summary - 2020**

Direct Sales	Repayments	Grant Payments		Approved Projects	
2020	2020	2020	Full-scale projects (2020)	Mini projects (2020)	Total projects (2020)
\$22 million	\$2.2 million	\$8.8 million	18 projects*	0 projects	18 projects
Cumulative	Cumulative (from 470 companies)	Cumulative	Cumulative	Cumulative	Cumulative <b>1,018</b> projects
\$5 billion	\$113 million	\$372 million	839 projects	179 projects	

<sup>\*\*</sup> includes 2 BIRD HLS/First Responders projects

# **ABOUT BIRD**

The U.S.- Israel Binational Industrial Research and Development (BIRD) Foundation works to encourage cooperation between U.S. and Israeli companies in a wide range of technology sectors by providing funding and assistance in facilitating strategic partnerships for developing joint products or technologies.

BIRD provides support of up to 50% of a project's budget, beginning with R&D and ending with the initial stages of sales and marketing. BIRD shares the risk and requires repayment only if the project achieves revenue. BIRD supports projects without receiving any equity or IP rights in the participating companies or technologies.

BIRD's scope extends to Advanced Manufacturing, Agrotechnology, Cleantech and Environment, Communications, Construction Tech, Electronics, FinTech, Gas, Healthcare IT, Homeland Security and Cyber Security, Life Sciences, Nanotechnology, Semiconductors, Software, and other areas of innovative technology with commercial potential.

Since 1977, the Foundation has approved investments in over 1000 projects, which have yielded direct and indirect revenues of more than \$10 billion. BIRD approves projects twice a year. Projects are evaluated by expert reviewers appointed by the Israel Innovation Authority (IIA) and the National Institute of Standards and Technology (NIST), U.S. Department of Commerce.

The Foundation manages the BIRD Energy Program focused on promoting and supporting U.S.-Israel joint development projects relating to clean energy technologies. This program is the implementation of a cooperation agreement between the U.S. Department of Energy, the Israel Ministry of Energy jointly with the Israel Innovation Authority. BIRD Energy adheres to the same rules and procedures as BIRD.

In addition, the BIRD Foundation also manages the binational program, "BIRD Homeland Security" a joint U.S.-Israel program to foster and support the development of advanced technologies for First Responders, technologies and methods to secure critical infrastructure and public facilities, safe and secure cities, border protection, including maritime security, technologies in the use of unmanned aerial systems and law enforcement supporting technologies to combat cyber-crime. This program was established by the U.S. Department of Homeland Security (DHS) and the Israel Ministry of Public Security (MOPS) as part of the agreement between the Government of the United States of America and the Government of the State of Israel on Cooperation in Science and Technology for Homeland Security Matters. The collaboration agreement was designed to improve and enhance the preparedness of national rescue forces including fire, police and first-aid units, and their capabilities in the field. This program supports collaborations between U.S. and Israeli companies and allows for universities and research institutions to participate by partnering with a company/corporate entity.

In 2018, the BIRD Foundation was selected to manage the U.S.-Israel Energy Center, fully named: The U.S.-Israel Center of Excellence for Energy, Engineering and Water Technology.

The goal of the Energy Center, established by the U.S. Department of Energy, Israel Ministry of Energy and the Israel Innovation Authority, is to promote energy security and economic development through the research and development of innovative energy technologies.

The Energy Center is a 5-year program, covering four topics: Fossil Energy, Energy Storage, Energy Cyber and Energy-Water Nexus. For each topic, a consortium of U.S. and Israeli companies and/or universities and/or research institutions will jointly perform research and development, leading to know-how/technology transfer from academia to industry and significantly accelerating deployment of technologies.

# **APPROVED PROJECTS – JUNE & DECEMBER**

# Agrotechnology



Israeli Co.	U.S. Co.	Additional Sector Info.	Title of Project
<b>BeeHero Ltd.</b> Tel Aviv	Tauzer Apiaries Woodland, CA	Crop Pollination	Smart Pollination Platform for Better Crop Yields

#### **Communications**



Israeli Co.	U.S. Co.	Additional Sector Info.	Title of Project
Ayecka Communication Systems Ltd. Kfar Saba	Envistacom, LLC Atlanta, GA	Satellite Communications	Satellite Communication and 5G Virtual Modem Edge Device to Enable Waveform Technologists and Service Providers to Input Digitized Proprietary Waveforms for Wireless Transmission

## **Electronics/ Software**



Israeli Co.	U.S. Co.	Additional Sector Info.	Title of Project	
AIO ME Ltd. Tel Aviv	Finastra Financial Technology Corp. New York, NY	Fintech	Next-Generation Loan-Origination System to Automatically Collect and Verify Customer Data While Maintaining Regulatory Compliance	
<b>Datumate</b> <b>Ltd.</b> Yokne'am Illit	Heavy Construction Systems Specialists Inc. Sugar Land, TX	Construction Technology	Construction Site Management Collaboration Framework	
Kitov Systems Ltd. Rosh Ha'ayin	Capvidia NA LLC Houston, TX	Advanced Manufacturing	CAD2SCAN: a process for using the digital 3D CAD model to automate visual inspection in production	
Redler Technologies Ltd. Netanya	Martin Technologies Hudson, MI	Automotive	Advanced Automotive Electronic Power Distribution Module	
VayaVision Sensing Ltd. Or Yehuda	<b>Trimble Inc.</b> Sunnyvale, CA	Autonomous Vehicles	A Perception-based Autonomous- Driving System for Vehicles and Heavy Machinery in the Agriculture, Construction and Mining Markets	

## **Healthcare IT**



Israeli Co.	U.S. Co.	Additional Sector Info.	Title of Project
ContinUse Biometrics Ltd. dba Donisi Health Tel Aviv	Dell Technologies, Inc. Round Rock, TX	Contact-free Sensing	Miniature Optical Module for Health Parameter Sensing
Serenus.Al Ltd. Tel Aviv	<b>HealthTrio</b> Denver, CO	Artificial Intelligence	An Al-based Platform to Assist Medical Professionals and Insurance Companies in Making Better Medical Decisions

# Homeland Security (HLS) & Cyber Security



Israeli Co.	U.S. Co.	Additional Sector Info.	Title of Project
Aeronautics Defense Systems Ltd. Yavne	PreVision Corp. Edgewood, NM	Surveillance	Wide Area Motion Imagery (WAMI) Sensor with Automated Interface to an Electro-Optics Payload on a UAS Platform
<b>Firedome Ltd.</b> Tel Aviv	<b>Olibra LLC</b> Cresskill, NJ	Cyber Security	Transform Traditional Consumer Electronics Devices into Connected Cybersecurity Guardians of the Home

## **Life Sciences**



Israeli Co.	U.S. Co.	Additional Sector Info.	Title of Project
<b>AEYE Health</b> Tel Aviv	University of Massachusetts Medical School Worcester, MA	Diagnostics	Diagnostic Screening System for Retinal Imaging
GNX Data Systems Ltd. (Genoox) Tel Aviv	ASPiRA Labs, Inc., a Vermillion Company Austin, TX	Diagnostics	AGTT: An Al-based, Dynamic and Affordable Genetics Testing Technology Transfer
Marpe Technologies Ltd. Haifa	Nortech Systems, Inc. Wayzata, MN	Medical Devices	Total-Body Tele-Dermatology Scanning System
Senso Medical Labs Ltd. Nazareth	Haystack Diagnostics Inc. Brookline, MA	Medical Devices	Multi-electrode Device to Advance Electro Diagnostic Medicine
Squalus Medical Ltd. Caesarea	Fortec Medical Hudson, OH	Medical Devices	Innovative Epilepsy Laser Treatment
XRHealth IL Ltd. Tel Aviv	Beth Israel Deaconess Medical Center, Inc. Boston, MA	Medical Devices/ Virtual Reality	Perioperative VR Platform Designed to Distract Patients from Pain while Undergoing Medical Procedures

# Other



Israeli Co.	U.S. Co.	Additional Sector Info.	Title of Project
Aero-	Safran Seats	Materials	Weight Reduction Solutions for
Magnesium	USA LLC		Aircraft Seating Applications
Ein Harod Ihud	Gainesville, TX		based on Magnesium Technologies

# **BIRD ENERGY**

BIRD ENERGY develops innovation through U.S.-Israel cooperation in a range of clean energy technologies including renewable energy, energy efficiency, natural gas and energy-water technologies.

The program is the implementation of a cooperation agreement between the U.S. Department of Energy, the Israel Ministry of Energy jointly with the Israel Innovation Authority and the BIRD Foundation. BIRD ENERGY was launched in 2009.

BIRD ENERGY projects address energy challenges and opportunities of interest to both countries while focusing on commercializing clean energy technologies that improve economic competitiveness, create jobs and support innovative companies.

BIRD Energy follows the BIRD Foundation's rules and procedures.

## BIRD Energy Statistics 2009 - 2020

Approved	Signed	Funding from	Grant	Repayments <sup>[3]</sup>
Projects	Projects <sup>[1]</sup>	Governments	Payments <sup>(2)</sup>	
66	48	\$41.66 M	\$23.23 M	1.38 M

- 1. Signed projects until December 31, 2020
- 2. Payments to all projects in development stage
- 3. Repayments from 7 projects

#### **BIRD Energy Executive Committee**

#### Members of the BIRD Energy Executive Committee include:

Ms. Andrea Lockwood Deputy Assistant Secretary for Europe, Eurasia, Africa and the Middle East, U.S. Department of Energy

Dr. Gideon Friedmann Acting Chief Scientist, Israel Ministry of Energy

**Mr. Anthony Marcus** (representing BIRD Board of Governors), U.S. Department of Treasury

#### Acted on behalf of the Executive Committee during 2020:

Mr. Aharon Aharon CEO, Israel Innovation Authority

#### Joining the Executive Committee Meeting:

**Dr. Ami Ben Shalom Friedman** Head of Systems Sector, Technology Division, Israel Innovation Authority

Mr. Daniel Blumenthal Department of Energy Attaché, U.S. Embassy, Jerusalem

Ms. Nofar Hamrany Collaboration Manager, International Collaboration Division, Israel Innovation Authority

Dr. Yael Herman Head of Technology and Renewable Energy, Israel Ministry of Energy

**Mr. Avi Luvton** Acting Vice President, International Collaboration Division, Israel Innovation Authority

Mr. Nathaniel Mason Office of European & Eurasian Affairs, U.S. Department of Energy

Mr. Josh McKearin Deputy Director for Europe and Eurasian Affairs, U.S. Department of Energy

Ms. Blair Pasalic Senior Analyst, Office of European and Eurasian Affairs, U.S. Department of Energy

Mr. Israel Shamay Executive Manager, North America, Israel Innovation Authority

Dr. Riju Srimal Senior Foreign Affairs Officer, U.S. Department of State

**Mr. Joshua Volz** Acting Director, Office of European and Eurasian Affairs, U.S. Department of Energy

Dr. Tom Wang International Program Manager, NIST, U.S. Department of Commerce

# **BIRD ENERGY APPROVED PROJECTS BY SECTORS**

#### **Batteries**



Israeli Co.	U.S. Co.	Title of Project
Addionics IL Ltd. Tel Aviv	Saint-Gobain Ceramics & Plastics, Inc. Northboro, MA	High-Power, High-Capacity Solid- State Batteries with Novel Electrode Components
<b>Eviation Tech Ltd.</b> Kadima	<b>AVL Powertrain Engineering, Inc.</b> Plymouth, MI	Electric Aircraft Battery
<b>StoreDot Ltd.</b> Herzliya	Nanoramic Laboratories Boston, MA	Ultra-Fast Charging Power Bank for Mobile Devices
<b>Tadiran Batteries Ltd.</b> Kiryat Ekron	<b>HiT Nano, Inc.</b> Bordentown, NJ	Silicon Anode, Nickel Rich Cathode, High-Energy High-Safety AA Li-Ion Cell for Industrial Internet of Things Applications

#### **Fuel Cells**



Israeli Co.	U.S. Co.	Title of Project
Hydrolite Ltd. (formerly POCellTech Ltd.) Caesarea	W7energy LLC Wilmington, DE	A Low-Cost Fuel Cell System based on Hydroxide Exchange Membranes

#### **Natural Gas**



Israeli Co.	U.S. Co.	Title of Project
<b>TurboGen</b> Ramat Gan	<b>En-Power Group</b> White Plains, NY	Next Generation Combined Cooling, Heat and Power Solutions

## **Electric Vehicles**



Israeli Co.	U.S. Co.	Title of Project
VisIC Technologies	Vepco Technologies	80kW Gallium Nitride (GaN) based Dual
Ltd.	Inc.	Motor Drive Power Inverter for Plug-in
Nes Ziona	Chino, CA	and Battery Electric Vehicles

# **Wind Energy**



Israeli Co.	U.S. Co.	Title of Project
ECOncrete Tech Ltd. Tel Aviv	LafargeHolcim (US) Inc. Chicago, IL	Ecologically Engineered Scour Protection Units for Offshore Wind Foundations

# **U.S.- ISRAEL ENERGY CENTER**

The U.S.-Israel Energy Center (The U.S.-Israel Center of Excellence in Energy, Engineering and Water Technology) was initially authorized by the U.S. Congress in the U.S.-Israel Strategic Partnership Act of 2014 and funded by the Israeli Government in 2016. The total expected government funding for the Energy Center is \$40M for 5 years.

The oversight of the Energy Center is the responsibility of the U.S. Department of Energy, the Israel Ministry of Energy jointly with the Israel Innovation Authority.

The purpose of the Energy Center is to accelerate development and deployment of critical and innovative technologies in the areas of (1) Fossil Fuels; (2) Energy Storage; (3) Cyber Security for Energy Infrastructure; (4) Energy-Water Nexus.

In March 2020, three consortia were selected for Topics (1), (2) and (4) and awarded \$27.6M in grants (\$55.2M total value, including cost sharing).

A second Call for Proposals for Topic (3) was issued in July 2020.





U.S.- Israel Energy Center Award Ceremony at the U.S. Israel Chamber of Commerce, March 6, 2020 Standing in the center: U.S. Secretary of Energy, Mr. Dan Brouillette and Israel Minister of Energy, Dr. Yuval Steinitz who announced the winners. Photo Credit: Shumilk Almany

## **Energy Center Executive Committee**

Mr. Ted Garrish Assistant Secretary for International Affairs, U.S. Department of Energy Ms. Andrea Lockwood Deputy Assistant Secretary for Europe, Eurasia, Africa and the Middle East, U.S. Department of Energy

Mr. Udi Adiri Director General, Israel Ministry of Energy

Mr. Aharon Aharon CEO, Israel Innovation Authority

#### **Representing BIRD's Board of Governors**

Dr. Tom Wang International Program Manager, NIST, U.S. Department of Commerce

# Others who have acted on behalf of the Executive Committee during 2020

Mr. Robert Sandoli Director for Europe and Eurasia for International Affairs, U.S. Department of Energy

**Dr. Gideon Friedmann** Acting Chief Scientist, Israel Ministry of Energy

Mr. Avi Luvton Acting Vice President, International Collaboration Division, Israel Innovation Authority

#### **Joining the Executive Committee Meeting**

Mr. Asaf Aharon Program Director for North America, Israel Innovation Authority Ms. Yifat Alon-Perel Minister of Economic & Trade Affairs, Israel Embassy, Washington D.C.

Ms. Victoria Coates Senior Advisor to the Secretary, U.S. Department of Energy Ms. Blair Pasalic Senior Analyst, Office of European and Eurasian Affairs, U.S.

Department of Energy

Ms. Janette Shalom Advisor to the Director General, Israel Ministry of Energy Dr. Riju Srimal Senior Foreign Affairs Officer, U.S. Department of State

#### **Energy Center Management and Operations**

The Energy Center is managed and operated by the BIRD Foundation and its staff, with the support of the following:

Ms. Tal Fischelovitch Manager

Ms. Shiri Freund Koren U.S. Coordinator

Mr. Uri Attir Coordinator Energy Water Nexus

**Dr. Ory Dor** Coordinator Fossil Energy

Dr. Zvi Tamari Coordinator Energy Storage

# **AWARDED CONSORTIA MARCH 2020**



## **Energy Storage**

Lithium and Sodium Metal Solid State Batteries for Advanced Energy Storage Applications

	U.S. Entities	Israeli Entities
Leaders	University of Maryland, College Park	Bar-Ilan Research and Development Company
Consortium Members	Saft America	Tel Aviv University
	Forge Nano	Materials Zone
	Ion Storage Systems	3DBattery



## **Fossil Energy**

Safe, Sustainable and Resilient Development of Offshore Reservoirs and Natural Gas Upgrading through Innovative Science and Technology: Gulf of Mexico – Mediterranean (GoMed Consortium)

	U.S. Entities	Israeli Entities
Leaders	Tulane University	The Hebrew University of Jerusalem
Consortium Members	Louisiana State University	Technion Research & Development Foundation (TRDF)
	University of Louisiana	University of Haifa
	UChicago Argonne, LLC Operator of Argonne National Laboratory	Geological Survey of Israel
		Ramot at Tel-Aviv University Ltd.
		Delek Drilling LP



#### **Energy Water Nexus**

Israel-U.S. Collaborative Water-Energy Research Center (Israel-U.S. CoWERC)

	U.S. Entities	Israeli Entities
Leaders	Northwestern University	Ben-Gurion University of the Negev
	Argonne National Laboratory	Technion Research & Development Foundation Ltd.
	Yale University	Mekorot-Israel National Water Company
	DuPont Water Solutions	Fluence Corporation
Consortium	AECOM	Galilee Society
Members	Metropolitan Water Reclamation District of Greater Chicago (MWRD)	
	Hampton Roads Sanitation District (HRSD)	
	CycloPure, Inc.	
	Current Innovation	



U.S.- Israel Energy Center Executive Committee meeting at the U.S. Department of Energy, March 4, 2020. Standing in the center, the four members of the Executive Committee:
US DOE Office of International Affairs: Mr. Ted Garrish, Assistant Secretary and Ms. Andrea Lockwood, Deputy Assistant Secretary for the Africa, Middle East, Europe and Eurasia.
Israel Innovation Authority: Mr. Aharon Aharon, CEO. Israel Ministry of Energy: Mr. Udi Adiri, Director General.

# **BIRD HLS - HOMELAND SECURITY TECHNOLOGIES**

Under the agreement between the Government of the United States of America and the Government of the State of Israel on Cooperation in Science and Technology for Homeland Security Matters, the U.S. Department of Homeland Security (DHS), and the Israel Ministry of Public Security (MOPS) established a cooperative activity to foster and support U.S.-Israel joint development of advanced technologies for First Responders and Homeland Security technologies.

This program is managed by the BIRD Foundation.

The "BIRD HLS" program follows the BIRD Foundation's rules and procedures.

#### **BIRD HLS Statistics 2016-2020**

Approved Projects	Signed Projects (1)	Funding from Governments	Grant Payments <sup>(2)</sup>
12	9	\$9.01 M	\$4.87 M

- 1. Signed projects until December 31, 2020
- 2. Payments to all projects in development stage

#### **BIRD HLS Approved Projects - 2020**

Israeli Co.	U.S. Co.	Title of Project	
Ception Technologies Ltd. Jerusalem	<b>Hivemapper Inc.</b> Burlingame, CA	A Fused Air and Ground 3D Mapping System	
<b>Levitection Ltd.</b> Haifa	Liberty Defense Technologies Inc. Peachtree Corners, GA	A detection solution based on electromagnetic imaging and artificial intelligence to detect threats and concealed items in wide-open areas	

#### **Selection Committee Representatives**

Ms. Megan Mahle Industry Partnerships, Office of Innovation and Collaboration, Science & Technology, U.S. Department of Homeland Security Dr. Gad Frishman Chief Scientist, Israel Ministry of Public Security

#### **Additional Committee Members**

Ms. Jennifer Vesser Office of Innovation and Collaboration, Science & Technology, U.S. Department of Homeland Security

Mr. Yaron Kron Head of Technology Section, Israel Ministry of Public Security

#### **Selection Committee Observers**

Ms. Kesia Hamilton Program Analyst, International Cooperative Programs Office, Science & Technology, U.S. Department of Homeland Security

**Ms. Nofar Hamrany** Collaboration Manager, International Collaboration Division, Israel Innovation Authority

**Mr. Avi Luvton** Acting Vice President, International Collaboration Division, Israel Innovation Authority

Ms. Stephanie Okimoto Director, International Cooperative Programs Office, Science & Technology, U.S. Department of Homeland Security

Dr. Riju Srimal Senior Foreign Affairs Officer, U.S. Department of State

Dr. Tom Wang International Program Manager, NIST, U.S. Department of Commerce

# **BIRD EVENTS - WEBINAR HIGHLIGHTS**



BIRD ENERGY Opportunities for Funding April 27, 2020



Leveraging U.S.-Israel Funding for Homeland Security Partnerships May 6, 2020



The Road to U.S.-Israel Collaboration: Non-Dilutive Funding in the Energy Sector June 4, 2020



BIRD Foundation Funding for Food Manufacturing/ Supply Chain Industry June 11, 2020



E-Summit: Ignite the Spark- The Future of Energy Tech June 16, 2020



US- IL Homeland Security Funding Opportunity Webinar July 1, 2020







# **BIRD'S ACTIVITY GENERATES 10 MAJOR BENEFITS\***

## **Company-Level Benefits**



2 Improved Partnerships

Access to Innovative
Technology

- 'Stamp of Approval'
- Improved
  Core Capabilities
- **6** Better Access to Markets

#### **National-Level Benefits**

Promoting
Relations
between U.S. & IL
Companies

Strengthening
Government R&D
Collaboration

Channeling R&D
Investments
into U.S.-IL

Economic Benefits
Sales, Jobs, Funds

\*During 2020, following a Board of Governors' decision, an Impact Study was conducted and published, highlighting the accomplishments achieved by the BIRD Foundation along with the significant impact BIRD has had on the present ecosystem, as well as the challenges that lie ahead. The Impact Study was conducted by Shaldor (Israel) in cooperation with the Technology Policy Institute (Professor David Cheney, U.S.). For the full publication see: www.birdf.com/impact-study

# **EXAMPLES OF SUCCESS STORIES**



Balcony.io

ImageSat and Balcony.io work towards successful commercialization of their Validated Situational Awareness Platform that provides quick response to disaster situations

ImageSat (ISI), a world leader in space-based intelligence solutions, partnered with Sunnyvale, CA company, Balcony.io, to develop a system that aggregates high-resolution satellite imagery with crowdsourced mobile user information.

The companies were awarded a BIRD Foundation grant in 2017 and jointly developed the 'Closeup' solution based on the ISI intelligence platform and Balcony's geo communication platform.

This platform merges geo-data validation by seamlessly aggregating high-resolution satellite imagery with smartphone users on the ground, providing a new source of information and insights into developing incidents. The platform will enable organizations to quickly gather, analyze and identify locations of interest from satellite imagery and immediately reach mobile phone users at those locations with targeted requests for information and receive eyewitness accounts that only a person on the ground can provide.

The solution intends to offer Validated Situational Awareness faster and more accurately than traditional information sources and it can be applied as a real time management tool for unfolding events.

The companies are focusing on commercializing their joint platform and recently sold their first system this past year.









Christiana Care Gene Editing Institute

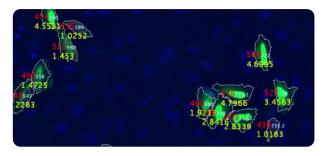
BIRD project leads grantee, NovellusDx, to develop new drug for treating certain types of cancer

NovellusDx of Israel, and Christiana Care's Gene Editing Institute of Delaware, were awarded a BIRD grant in 2016 to identify the genetic mechanism responsible for many types of cancer progression.

The NovellusDx technology uses computer algorithms and live cells to probe the genetic mutations in the tumor of a cancer patient. The technology identifies the "driver mutations" which are involved in the cancer's progression. The technology can also screen a series of cancer drugs to determine which treatments are likely to be most effective at shutting down these particular driver mutations.

This joint project integrated a pioneering new gene-editing technique developed by the Christiana Care Gene Editing Institute into NevellusDX's cancer diagnostic process. It led NovellusDx to identify a specific drug as a candidate to treat various types of cancer.

In June 2020, Novellus signed an exclusive licensing agreement with a multinational pharmaceutical company to develop their compounds further to identify hyper-specific biomarkers and match them with the right cancer patients.





# **REPRESENTATIVES**

## **BIRD Representatives in the U.S.**

#### Atlanta, GA

Conexx (FKA America-Israel Chamber of Commerce, S.E. Region)

#### **Barry Swartz**

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#### Baltimore, MD

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#### Barry Bogage

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