MEMORANDUM

TO: Governor Terry McAuliffe
FROM: Mel Chaskin – Chairman, Virginia Israel Advisory Board
Ralph Robbins – Executive Director
DATE: November 17, 2014
RE: 2014 Annual Review of the Virginia Israel Advisory Board
CC: Distribution List (Attached)

The VIAB contributed to the growth of 172 new jobs in FY 2014. These jobs generated approximately $9.98 million in revenue and in state tax revenue of $573,620.00. The board continues to be an effective means of enhancing the relationship between Virginia and Israel. Based on direct and indirect job creation from projects developed by the VIAB (FY 2000-2014) the Commonwealth has historically received 519% return on investment.

Mel Chaskin
Chairman, Virginia Israel Advisory Board
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Annual Review
Virginia Israel Advisory Board
Office of the Governor

Mel Chaskin, Chairman
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November 2014

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Executive Summary: FY 2014 Results

1. The Sabra factory in Chesterfield County continues to be a major economic success for the Commonwealth despite the challenging economy. The Sabra facility opened its Center of Excellence in April 2013 and opened its manufacturing expansion in April, 2014. An estimated 170 jobs will be added during the 2014-2015 period.

2. The VIAB initiative that led to the establishment of the “Virginia Israel Bio Sciences Commercialization Center” has progressed to become Virginia Life Science Investments (VLSI). A total of nine Israeli companies are now part of the initiative. An $18 million fund has been raised to support the growth of these companies. The VIAB was responsible for securing the fund’s first Israeli investor who has invested $500,000 of direct investment into Virginia via the fund. Significantly, EOS of Tidewater expanded its manufacturing facility in FY2013 to produce countertops based on Cupron technology. Expanded studies are now taking place with the Sentara health organization. Cupron is one of the original companies the VIAB introduced to the VLSI during a Gateway program. Total new jobs for EOS as a result of the Cupron product is expected to reach 48 people.

3. The VIAB in Agro Technology in SW Virginia is expanding. The VIAB has teamed with Virginia Tech to evaluate and facilitate Israeli agro tech projects/investment in the Southwestern part of Virginia. The VIAB is working on two major projects: Project Jonah (aquaculture) and a “smart turnkey greenhouse” project. The VIAB is exploring other ways to augment this initiative including special funding opportunities. Progress is being made including due diligence visits to Europe to evaluate the opportunities. These projects can lead to additional new jobs in Southwest Virginia totaling between 450 and 525 jobs over the next 12 – 24 months.

4. Despite slow economic growth in FY2014, 172 new jobs were added in FY2014 from VIAB efforts representing additional tax revenue to the State of $573,620 on a tax base of $9.98 million.

5. From FY2000 – 2014, the VIAB has been involved with activities adding approximately 1,810 net new jobs to Virginia’s workforce. These jobs have generated approximately $54.3 million in state tax revenues. If we discount this amount by a conservative 78% for multiple parties involved in the decision process to establish a facility in Virginia, the amount of tax revenue generated by the VIAB is $11.9 million which represents a 519% return on Virginia’s investment in the VIAB over the past fourteen years.

6. The VIAB projects that the current pipeline of activities will increase jobs in Virginia by 740 jobs over the next one to three years. This would translate to additional state tax revenue of $2.47 million based on a tax base of $42.9 million.

7. The State Auditor of Public Accounts completed its Audit for FY2014. Their findings are as follows:
   - Proper recording and reporting of all transactions, in all material respects, in the Commonwealth Accounting and Reporting System
   - No matters involving internal control and its operation necessary to bring to management’s attention;
   - No instances of noncompliance with applicable laws and regulations or other matters that are required to be reported.

VIAB Objectives

The primary mandate of the Virginia Israel Advisory Board continues to be economic development in Virginia. Our goals and strategies are:

1. Facilitating new Israeli company entry into Virginia.
2. Working with the Israeli companies already located in Virginia via networks to help facilitate internal growth and expansion.
3. Leveraging the company’s strength in order to create a multiplier effect for job creation.
4. We devote from 10% - 15% of our energies to special educational and cultural projects.
Review: Achievements, Updates and New Initiatives for FY 2014

1. Sabra Manufacturing Expansion:
Opening: October, 2014
On October 7 the Sabra Dipping Company opened an 118,000 square foot expansion, Sabra expects to add an additional 70 jobs to the Chesterfield County location next year. It is expected that additional jobs will be created next year.

Sabra history in Virginia
- **2010**: Sabra opened manufacturing in Chesterfield County, Virginia
- **2010**: VIAB facilitated the R&D to grow the “Virginia-Sabra” Chickpea
- **2013**: [Center of Excellence] opened: Sabra’s international food R&D center
- **2014**: Expansion doubling manufacturing capacity in 2014
- **2015**: Estimated employment 575
- **2015**: Over 350 test beds of the Virginia-Sabra chickpea have been planted in various parts of the State.
- **2016 – 2020**: Anticipated roll out of the Sabra chickpea with an estimated 8,000 – 10,000 farmers involved by the year 2020

VIAB Leverages Sabra to facilitate Virginia Chickpea Development: a new crop for Virginia

![Graph showing estimated number of farmers that will grow chickpeas in Virginia 8,000 – 10,000](chart.png)
2. Update: The Virginia Chickpea Development Project

In 2010, the VIAB facilitates discussions with Sabra and the Secretary of Agriculture about introducing the chickpea crop to Virginia. Until this time, it was assumed that Virginia’s soil was too moist for the chickpea crop.

A chickpea expert from Virginia State University, Professor Harbans L. Bhardwaj, Ph. D., was confident that a quality chickpea could be developed.

A six year program was initiated with funding provided by both the Virginia State University and the Commonwealth of Virginia.

“At the beginning of my research, I was 25% confident that we could develop the ‘Sabra-Virginia’ chickpea. I am now 75% confident that we can begin rollout in 2016”

Potential Jobs: 8,000 – 10,000 farmers

Based on expected needs of Sabra, supplying Sabra with its needs would require approximately 150,000 acres and create from 8,000 – 10,000 farmer related jobs between 2016 – 2022 when the crop will be rolled out by Virginia farmers. It’s expected that VDACS will have to implement an educational program for the farmers as it did in the past with tobacco.
3. New Initiative: Smart Turnkey Greenhouse Projects

Several Israeli companies are teaming to develop smart turnkey greenhouse projects in Virginia. Each project is a complete business that will produce commercial quantities of “foods” (primarily vegetables) in an entirely controlled environment that works 24/7, 365 days per year.

A leading expert in greenhouse project development is leading the initiative. While most projects to date have taken place in the Far East and Eastern Europe, the VIAB, Virginia Tech and the Israeli expert have conducted feasibility studies that support the concept in the United States.

The business concept is to develop from 6 – 15 projects in Virginia over the next 3 years with each project owned by a farmer/investor. The business is a closed circle that addresses all of the critical issues of a successful business:

- Feasibility analysis.
- Contracts with supply chain.
- Planning and construction of facility.
- Hands on teaching.
- Ongoing support.
- Financial support.
- Future flow of products.

Potential Job Creation:
There will be several potential job creators within this initiative:

- The company working demonstration site consisting of 3 units over 7.5 acres: 25 jobs by year 3
- Estimated 10 farmer owned projects by year 3: 80 jobs
- Israeli steel company establishing presence in region to support the project: 30 jobs

The company plans to expand throughout the US via controlled expansion one state at a time, with Virginia remaining as the company’s US headquarters and R&D facility.
4. Update: Aquaculture – Project Jonah

A major initiative was initiated last year. This involves a vertically integrated Aquaculture industry to be deployed in the Southwest region of Virginia. This $120 - $150 million project will create approximately 450 direct jobs and 750 – 1,250 indirect jobs in Southwest Virginia.

This project is considered a “transformational project” for Southwest Virginia because it brings a totally vertically integrated aquaculture business to the community.

The following achievements have been made during the past year:

- The company hired a CEO with extensive background in fundraising. This is important as the company is in the process of raising significant private equity to compliment the significant commitments from public funding sources.
- A key manager from the Israeli headquarters relocated to Blacksburg to support the project.
- A due diligence trip by leadership of the Tobacco Commission was made to a similar facility of the company in Poland. Ralph Robbins participated in the visit and it successfully demonstrated the capabilities of the company.
- Additional Federal grants in conjunction with Virginia Tech were sought that would augment the company’s R&D effort for new product development using their main product, i.e. fresh Tilapia.

5. Update: Virginia Israel Agrotech Commercialization Center based at Virginia Tech

VIAB Expert Advisor at Virginia Tech

Dr. David Kuhn, PhD, Research Assistant Professor, Department of Food Science and Technology Virginia Tech

Dr. Kuhn has been appointed as VIAB’s advisor and liaison with the faculty at Virginia Tech. His expertise corresponds to the strengths of the Israeli Agrotech community: seafood quality, seafood safety, and aquaculture research and outreach programs. Other specific areas of expertise focus on food processing (water and waste issues), risk based food systems, and effects of climate change on food systems.
Activities

Analysis, due diligence and feasibility studies continue to be made on two major projects: Project Jonah (Aquaculture) and Project Sunshine (Smart Greenhouses). These involve existing businesses that have operated throughout the world, but not in the United States.

New funding program for commercialization stage Israeli companies that want to enter the US market

In FY14 & FY15, the VIAB will strive to activate the Virginia-Israel R&D Agreement that was signed by the then Governor Kaine. The Agreement calls for potential funding from both the Israeli side and the Virginia side for early stage projects between Virginia and Israeli companies. Funding never materialized due to budget challenges.

The VIAB has succeeded to redefine the objectives of the program and has received a signed commitment from the Israeli Government Office of the Chief Scientist to execute a modified program. The basic elements of the program include:

- The program will focus on commercialization ready companies rather than early stage companies. This should result in more jobs being created at a faster pace.
- Rather than a general focus, the program will address a smaller niche: agro technology. This is consistent with VIAB’s Agrotech focus.
- Virginia Tech will administer the selection process. Each year, an advisory committee will create a list of “project concentration areas” that will address specific and real challenges in agro technology.
- It is expected that in addition to Virginia Tech, other relevant market leaders will participate on the advisory board including such Virginia companies as Sabra, Food City, etc.
- Each commercialization project will amount to about $400,000. Each joint project will match the grants which will total no more than $200,000 for each project. Matimop has committed $500,000 under the condition that either the State or other institutions in Virginia can commit an equal amount.
- The VIAB will seek to aggregate funding from various sources such as Virginia Tech, VCEDA, the Tobacco Commission, the Office of Secretary of Agriculture Todd Haymore, etc.
- It is expected that the program will lead to new company growth in Virginia that will result in job creation in the State.
- Estimated jobs that can be created each year from this program is estimated at 40 new jobs per year.
6. Announcement: Appalachian Biodiesel – 40 new jobs in Russell County

A biodiesel producer established its headquarters and production facility in Russell County, creating 40 new jobs. Appalachian Biofuels LLC will spend $3.5 million to convert a vacant property into its headquarters and biodiesel production facility. **Job creation: 40**

"The Virginia Israel Advisory Board” introduced this new game changing technology to Virginia.  
*Chuck Lessin, CEO Appalachian Biofuels*

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**Maurice Jones, Virginia Secretary of Commerce and Trade:** “The energy industry in Virginia is gaining momentum, and we are proud that Appalachian Biofuels will join this thriving sector. The company’s new headquarters and biodiesel production facility will play an important role in fulfilling Virginia’s increased commitment to alternative energy solutions. This project also strengthens Virginia’s business relationship with Israel, as the enzymes used in Appalachian Biofuels’ process are developed and manufactured in Haifa.

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7. Update: Virginia Israel Bio Science Commercialization Center

The Virginia Israel Commercialization, an initiative of the VIAB, evolved into **Virginia Life Science Investments (VLSI)** a private, for profit company. The primary purpose of this initiative is economic development:

- Guide the commercialization process of Israeli Life Science companies into the US market through the assets of the center and within Virginia.
- Provide access to distribution channels including Owens & Minor and McKesson, the two largest distributors for medical devices and pharmaceuticals respectively, who have partnered with the Park and the Center.
- Provide gap funding, if needed, to provide a bridge until additional funding is obtained if/when needed.
- Provide hands on management teams to lead each business. This model has established a new paradigm –not only is money raised to help with gap funding, but VLSI also serves as the hands-on business development arm for the company.
- Provide an infrastructure of support including VCU and other assets throughout the State.
Results to date:

- A total of $18 million has been raised privately and is being deployed primarily in Virginia.
- The VIAB was responsible for bringing the first direct Israeli investment to the fund: a $500,000 investment from a leading Israeli industrialist.

Manufacturing based on Cupron product began operation in Norfolk in 2014 creating 48 jobs.

Cupron has joined forces with U.S. company EOS, to establish a factory in Norfolk which is expected to create 48 jobs in Norfolk, Virginia. As a result of participation in the first VIAB “Gateway: Life Science” program, Cupron established a presence in Virginia.

This manufacturing facility is producing antibacterial Cupron Enhanced EOS surfaces. Through use of the Cupron labs at the Virginia Biosciences Commercialization Center (known today as VLSI), the company received EPA approval to claim that this product kills 99.9 percent of specific types of bacteria within two hours of exposure.

Updates:

ImmunArray

The Richmond, Va. and Rehovot, Israel-based developer of a breakthrough chip-based technology with the capacity to detect the presence of particular auto-antibodies in the blood, has been awarded a $300,000 grant as part of the first phase of a GE NFL Head Health R&D project.

Cupron

Sentara Healthcare, Cupron, EOS Surfaces, and Encompass Group have expanded their activities in FY2014 to evaluate the clinical and economic effectiveness of deploying antimicrobial copper-based hard surfaces and textiles in a range of healthcare environments. This comprehensive program is believed to be the world’s largest hospital evaluation to-date of antimicrobial-protected materials, with the goal of combating the spread of pathogens that are known to contribute to healthcare infections. Cupron-Enhanced EOS Surfaces and Cupron-enhanced textiles will be evaluated at multiple sites, including a new 250-bed acute-care facility, to assess the improvement of patient outcomes and the reduction of healthcare costs. A successful study is expected to lead to additional manufacturing jobs in Norfolk, Virginia.
8. Other Ongoing Economic Development Activities: Manufacturing Opportunities

Tahini Company
Sabra management and the VIAB have been working together to identify and host two Israeli Tahini companies. It is expected that one of the two will be invited to enter into a collaborative effort to establish a Virginia operation in return for longer term commitments from Sabra.

As part of this initiative, Sabra would like to explore the possibility of growing sesame in Virginia that can be harvested mechanically. Until now, all sesame is grown in Ethiopia because of the conditions and the cheap labor that is needed to harvest the crop. The VIAB is working with Sabra and State resources to test alternative sesame seeds that could be harvested mechanically. If the resulting product has acceptable taste patterns and other properties, Virginia will test growing sesame in the Commonwealth.

Potential jobs: 40

Project Lunchbox
The VIAB is working closely with an Israeli plastic manufacturer who has a growing base of US sales to the major chains. We have worked with the localities and the various economic development offices to obtain an impressive incentive package that the client is very pleased with.

The VIAB continues to overcome challenges concerning acceptable guarantees. We expect to resolve these issues by the end of 2014.

Potential Jobs: 80

Packaging Company
The VIAB has hosted an Israeli packaging company. An additional visit is planned for early 2015. The company plans to open a facility in the US in 2016.

Potential Jobs: 40

The VIAB emphasis for manufacturing facilities is South and Southwest Virginia, but not exclusively.
Revisiting Onsite Waste Treatment Facility

More than eight years ago the VIAB started working with an Israeli company that developed a cost effective, simple to operate onsite waste treatment system that can replace the septic system.

A larger unit, which uses the ecology friendly bio system, can address challenges of rural communities where connecting to the municipal line is cost prohibitive.

The VIAB worked with Fairfax County and the Department of Health to receive permission to conduct a test in single family dwellings in Fairfax County. We hope to expand this to rural Virginia as part of our other programs in the region.

The company will have to assemble in the US as it will be cost prohibitive to bring large units from overseas. **Potential jobs over the next three years: 30**

9. Teaming and Leveraging with Fairfax County

The VIAB leverages our contacts throughout the State with the Fairfax County Economic Development Authority both in Northern Virginia and Israel. We hold several joint programs in the Defense, Homeland Security and Cyber Security areas.

April, 2014 Program in Tel Aviv

The Fairfax County Economic Development Authority (FCEDA) in partnership with Virginia-Israel Advisory Board (VIAB) on April 2, 2014, executed a “Gateway USA: Homeland Security, Cybersecurity and Infrastructure Protection” program. A breakfast roundtable program, held at the Dan Tel Aviv Hotel. The event, attracted more than 35 executives of companies interested in expanding into the US market, and was supported by the U.S. Commercial Service, the Israel-America Chamber of Commerce, the Israel Advanced Technology Industries, and the Virginia-Israel Advisory Board.

May, 2014 Program in Fairfax County

The FCEDA hosted a delegation of Israeli companies that market homeland security and public safety technologies and products. The VIAB participated in this program. The lunch event, which attracted more than 60 executives of local firms, highlighted the unique “cybersecurity ecosystem”, in Fairfax County for domestic and foreign companies to accelerate expansion in the American market.
Other Israeli companies in Northern Virginia that the VIAB and the FCEDA collaborate with at different times and at different intensities:

10. Companies VIAB works with to Promote Retention and Growth in Virginia:
The VIAB spends quality time with companies to improve retention and to promote activities that can accelerate their growth. We often team with other Economic Development Offices throughout the state.

Zim Integrated Shipping Service. The company turned to the VIAB to resolve two issues over the past two years. One included retention which involved 400 jobs. The other involved an outreach for assistance that related to a problem in the Oakland Port in California. The VIAB guided the CEO to resources within our network. The retention issue has been resolved while the other issue is being addressed.

CQM opened a marketing office in Richmond as a result of the VIAB Gateway USA: Clean Tech that took place three years ago. The VIAB continues to work with CQM to assist them in advancing their discussions with Dominion.

11. Direct Flights: Tel Aviv – Dulles
Neither the VIAB nor the Metropolitan Airports Authority have been able to convince United Airlines of the incremental benefit to the airline that would result from inaugurating a direct flight between Tel Aviv and Dulles Airport. Research indicates that a new direct air link from overseas is the economic equivalent of an investment in an industrial complex amounting to $300 million. The VIAB continues to work with the Airports Authority and Fairfax County
Economic Development Authority to seek a direct Tel Aviv-Dulles flight. We remain frustrated, but resolute due to the high potential rewards.

The VIAB has recently held meetings with EL AL. Based on EL AL’s strategy and discussions with the Metropolitan Airports Authority, we are optimistic that in the coming one to three years there will be a compelling reason for EL AL to consider a direct flight to Dulles.

12. Funding Opportunities
The VIAB continues to represent the BIRD Foundation in the DC/VA area. The Foundation provides up to $1 million in “convertible grants” for joint R&D projects between an Israeli company and a US company. In the previous year, two companies that were seeking funding dropped out of the process for various reasons. We expect new projects in the coming year. In the past, BIRD projects in the region have led to the growth of an Israeli company, Gilat Satellite, in McLean, Virginia which employs approximately 300 people. Mergers and acquisitions have changed the status of the company. It acquired Spacenet and recently was acquired by Sagenet with headquarters in Tulsa. However, the jobs created by Gilat remain in Virginia and will continue to grow in Virginia.

As part of the VIAB’s mission, targeted cultural and educational programs are developed and executed.

13. Minds in Motion Program Regains Momentum
Minds in Motion is a year-long program that teaches fourth-grade students discipline, dedication and self-awareness by leading them through a series of choreographic movements which must be memorized and expanded upon in each class session. This is not a ballet class, but a way to teach students the benefits of applying themselves to a task involving both mental and physical challenges. It
requires no special clothing, shoes or equipment. The program is an outreach program of the Richmond Ballet.

Israel has been the first location outside of Virginia and the United States to further the program. The program in Israel is unique in that it brought two communities together: the Jewish community of Emek Hefer and the Arab Israeli community of Qalansawe. This provided both an educational and a cultural experience for the children as they participated together with the MIM program as the common denominator.

An additional possibility for future consideration: To conduct an R&D program that is intended to validate that the Minds in Motion program is an effective tool to teach tolerance among the children in diverse communities.

The program lost critical funding and had to take a year hiatus during FY2013. In FY2014, additional funding was committed by private contributors including Abby Moore and the Novembers that enabled the program to continue. The VIAB is working to help institutionalize the program in Israel.
14. “Hataklitim” in Virginia Beach

Virginia Beach holds a community event every year in the spring commemorating Israeli Independence Day. The event is open to the community and is designed to foster a relationship between Hampton Roads and Israel. The VIAB helped them find a band in Israel that could not only play “authentic popular Israeli tunes”, but one that could relate to the audience and interact with them. The VIAB succeeded in locating a qualified candidate, the band called “Hataklitim” had never performed in the United States.
Goals for FY 2015

1. To continue to support the growth of the **Virginia Israel Bio Science Commercialization Center** in Richmond. We expect that at least one new company will be added to the already existing ten companies.

2. To facilitate the establishment of two Israeli agro tech companies in the Southwestern part of Virginia. One will be in aquaculture and the other in a turnkey greenhouse project. We expect over 450 jobs to be created if we are successful. Total investment would exceed $150 million.

3. To establish a manufacturing facility of an Israeli company with a projected investment of $10 - $15 million and job creation of 50 - 100 people.

4. To add three new Israeli companies to northern Virginia’s high tech corridor adding 10-20 jobs and an investment of $5 - $10 million.

5. Generate 25 qualified leads, which the VIAB will develop in cooperation with the other State Agencies such as the VEDP and the County EDPs. Based on experience, we know that we have to screen 7 companies on average to get one qualified lead with above average potential for growth in Virginia. This requires detailed follow up, screening interviews and analysis.

6. Mentoring four young Israeli companies in Virginia that will result in an increase of 20 job positions and additional investment of $2.0 million.

7. The Virginia Israel Advisory Board expects to impact the Virginia economy in FY 2015 by adding 197 new jobs via new direct investment totaling more than $20.0 million that will generate an additional $656,995 in tax revenues to the Commonwealth.