Beyond the buzz

The future, Israel and you

Arik Makukh

Invest In Israel

The Israel Investment Promotion Center

Project funded by the EUROPEAN UNION

Israel in brief

Young — 66 years old

Small — 8 Million people

Growing — GDP 291.5 B USD (CAGR=12.5%, 2010-13)
GDP PPP 36.2K USD (CAGR=7%, 2010-13)

Beautiful — Beaches, Desert, Cities, People

Restless — 1% of world news

Scarce in natural resources, except for one…

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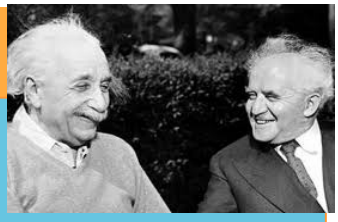
Israeli Human Capital

- Highest ratio of engineers per capita
- 10 Nobel prize winners – 6 in the last decade
  (2 in economics and 4 in chemistry)
- Skilled labour– #1 (IMD 2011)
- Entrepreneurship of managers – #2 (IMD)
- Flexibility of people – #2 (IMD)



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The country's vital resources

A curious culture

- **7** world class universities
- **#1** for quality of scientific institutions
- **#3** for scientific infrastructure
- **#4** for technological infrastructure
- Fast adoption of innovation

An entrepreneurial DNA

- **#1** for country and business expenditure on R&D (as % of GDP)
- Problem solving orientation – 2000 years of adapting to constant change
- Immigrants society – 80 countries of origin
- High tolerance for failure

#1 world innovative capacity
IMD Global competitive year book 2013

#3 Country Innovation
WEF Global competitive yearbook 2013-2014

#1 in startup ventures density
(outside USA ; 2nd to Silicon valley)

Tel-Aviv, Israel's business center, is ranked the second best innovation eco system

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Source: WEF year book 2013-2014 and IMD 2013

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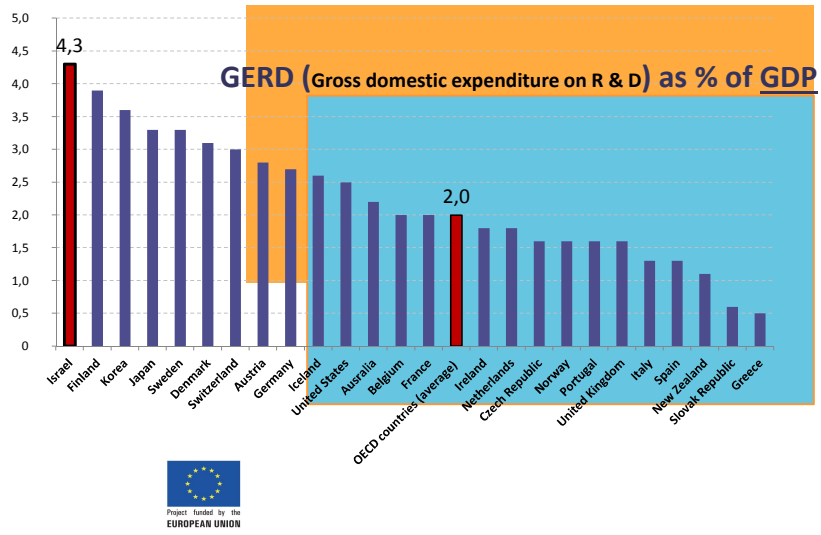
Intensity of R&D



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Israel's Competitive Edge – IMD World Report 2012

Country Rank →	1st	2nd	3rd	4th
BUSINESS EXPENDITURE ON R&D (% GDP)	**Israel**	Korea	Finland	Japan
TOTAL EXPENDITURE ON R&D (% GDP)	**Israel**	Finland	Korea	Switzerland
INNOVATIVE CAPACITY	**Switzerland**	Israel	Germany	USA
ENTREPRENEURSHIP OF MANAGERS	Taiwan	**Israel**	Hong Kong	Lithuania
SCIENTIFIC RESEARCH	Switzerland	**Israel**	USA	Sweden
KNOWLEDGE TRANSFER BETWEEN INDUSTRY & ACADEMIA	Switzerland	Israel	**USA**	Singapore

Source: IMD World Competitiveness Yearbook - 2012

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"**The country's main strengths remain its world-class capacity for innovation (3rd)**, which rests on highly innovative businesses that benefit from the presence of *the world's best research institutions* geared toward the needs of the business sector. Israel's excellent innovation capacity, which is supported by the government's public procurement policies, is reflected in the country's high number of patents (4th). Its *favorable financial environment*, particularly evident in the ease of access to venture capital (3rd), has contributed to *making* ***Israel an innovation powerhouse***."

Source: World Economic Forum

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The Global Competitiveness Report 2012-2013

(World Economic Forum)

Capacity of Innovation

12th pillar: Innovation

12.01	Capacity for innovation	5.4	6
12.02	Quality of scientific research institutions	6.3	1
12.03	Company spending on R&D	5.4	6
12.04	University-industry collaboration in R&D	5.4	8
12.05	Gov't procurement of advanced tech products	4.6	6
12.06	Availability of scientists and engineers	5.2	9
12.07	PCT patents, applications/million pop.*	235.5	4

Venture Capital

8.05	Venture capital availability	4.5	3

Investor Protection

1.22	Strength of investor protection, 0–10 (best)*	8.3	5

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Economic Figures

Ministry of Finance

Criteria	2012	2013	2013 Q1	2013 Q2	2013 Q3	2013 Q4	2014 Q1
GDP (Current prices in $B)*	257.5	291.5	68.2	73.0	74.9	75.5	75.8
Real GDP growth rate (% change)	3.4%	3.3%	2.1%	4.4%	2.0%	3.3%	2.9%
GDP per capita (Current $)	$32,565	$36,187	$8,521	$9,080	$9,272	$9,308	$9,303
GDP per capita growth rate (%, constant prices)	1.5%	1.3%	0.0%	0.7%	0.0%	0.3%	0.3%
Exports (goods & services), $B* ***(As % of GDP)***	93.1 *36.2%*	95.1 *32.6%*	23.3 *34.2%*	24.7 *33.8%*	21.8 *29.2%*	25.2 *33.4%*	25.1 *33.2%*
Imports (goods & services), $B* ***(As % of GDP)***	92.6 *36.0%*	91.4 *31.4%*	22.0 *32.2%*	22.6 *31.0%*	23.6 *31.5%*	23.2 *30.8%*	23.3 *30.7%*
Unemployment rate	6.9%	6.2%	6.6%	6.7%	6.0%	5.8%	5.8%

*Using a periodic average exchange rate

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Economic Figures

Ministry of Finance

Criteria	2007	2008	2009	2010	2011	2012	2013
Public debt (As % of GDP)	74.7%	73.2%	75.3%	71.7%	69.8%	68.4%	67.3%
General government expenditure (As % of GDP)	42.6%	41.6%	41.8%	41.0%	40.4%	40.2%	40.3%
Current account surplus (As % of GDP)	3.2%	1.4%	3.8%	3.1%	1.3%	0.3%	2.5%
Inflation rate (CPI, yearly average, % change)	0.5%	4.6%	3.3%	2.7%	3.5%	1.7%	1.5%
Budget deficit (Central) (As % of GDP)	0.0%	2.1%	4.9%	3.5%	3.1%	3.9%	3.2%

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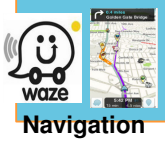
1,000

New innovative startups a year

(new breakthrough every 8 hours)

Disk on Key



Navigation

Gesture recognition

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Israeli success stories

Netafim - Drip (low volume) irrigation

Intel's Centrino and Pentium 4 microprocessors

Given Imaging - Ingestible video camera

M System's Disk On Key and Disk On Chip flash memory

AOL - Instant Messenger ICQ

Waze - Community-based GPS traffic and navigation app

Wix - Flash website platform

PrimeSense - 3D sensing technology for Kinect

Argo - Technology with motorized legs that power knee and hip movement

Powermat – Wireless energy transfer

Aqwize - Wastewater treatment solutions

TaKaDu - Monitoring water networks

Ormat - Geothermal energy and residual heat

HelioFocus – Solar thermal solutions

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A major development hub

300 of the world's leading corporations have opened development centers in Israel, employing some 50,000 people.

Haifa Region

Northern Region

Haifa

Tel Aviv

Jerusalem

Be'er Sheva

Jerusalem Region

Southern Region

Maps: Wikipedia

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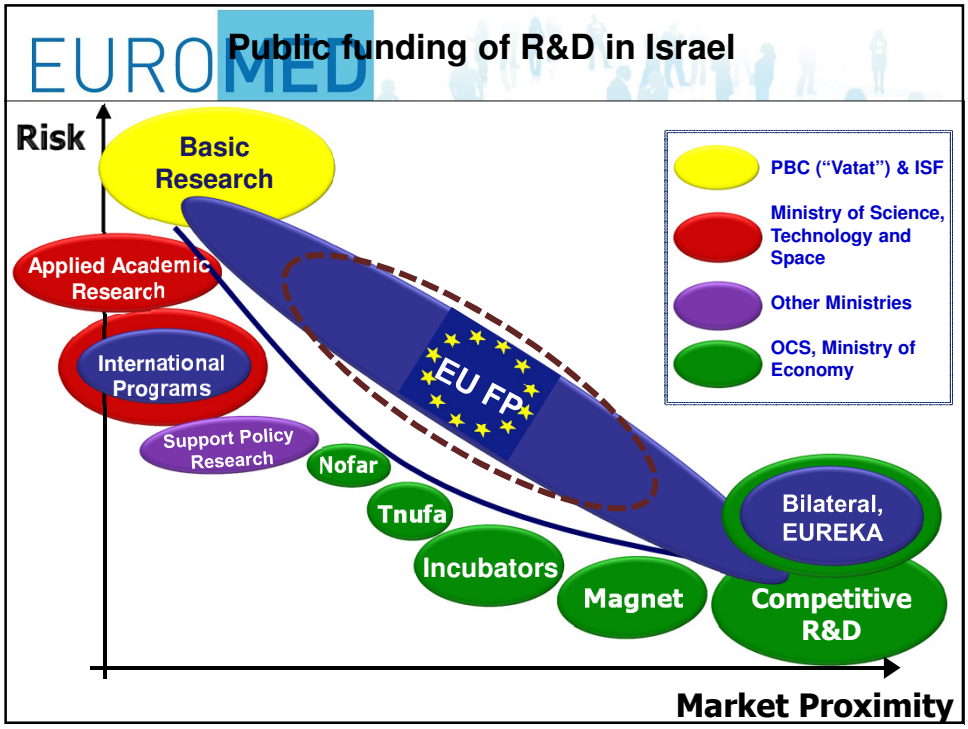
Israel and the EU Joint Programs

EU Programs' Characteristics

- EU Framework programs for R&D
  - 1996-2013: 4100 approved grants for Israeli R&D groups, totaling 1.25 billion Euros
- Horizon 2020 – Israel will contribute 1 billion Euros
- Eureka
  - Israel is the only non-European full member
  - Israeli companies participate in 10% of projects
  - Chairman of the program in 2010-2011


EUROMED
Public funding of R&D in Israel
Risk
Basic Research
Applied Academic Research
International Programs
Support Policy Research
Nofar
Tnufa
Incubators
Magnet
EU FP
Bilateral, EUREKA
Competitive R&D
Market Proximity
PBC ("Vatat") & ISF
Ministry of Science, Technology and Space
Other Ministries
OCS, Ministry of Economy

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Israel-Italy
The Bilateral Programs
Project funded by the EUROPEAN UNION

Bilateral Program Characteristics

- Industrial R&D in all sectors
- Annual Calls for Proposals (usually in Feb)
- Joint Participation and contribution of both sides to the project
- Project Financing of up to 50% of Costs

Project funded by the EUROPEAN UNION

Israeli side of project

- A two-phase process
- Financed by the OCS R&D fund
- Subject to the rules and regulations of the OCS

Project funded by the EUROPEAN UNION

Italian side of project

- A one-phase process
- Financed by the Italian Ministry of Foreign Affairs

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Funding Agencies - Israel

Office of the Chief Scientist (OCS) in the Ministry of Economy (with ISERD as front-end)

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ran@iserd.org.il

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Funding Agencies - Italy

Ministry of Foreign Affairs

Dott.ssa Federica Campioni
Ministero degli Affari Esteri
DGAP - Direzione Generale per gli Affari Politici e la Sicurezza
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Piazzale della Farnesina, 1 - 00135 Roma
Tel. +39 06 36918901
federica.campioni@esteri.it

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Results of the 2013 Call

- 53 applications; 33 ->phase 2 (in IL); 14 selected for financing
- Total amount of funding for all projects in Euro: IL 1.31M, IT 1.49M

Selected Project	Area	Israeli party	Italian party
AIRWAY	Environment	Airbase Systems	3D Informatica
FreeFlowMilkMeter	Food	ENGS	Cortal Extrasoy
FRESH	Food	Strauss	Officine di Cartigliano
HOPIP	Space/ICT	LMY	AGT
IrrIGATe	Food	Netafim, BGU	IGA, Università di Udine
MAG-Aviation	Avionics	Matechet Carmel	SAB Aerospace
MEME	Energy	Acktar, Technion	Tecnimont KT, INSTM
MOVER	Communications	Silicom	Politecnico di Torino; Tiesse S.p.A.
RAMSAAT II	ICT (QA)	ALD	NIER
RAYS	Environment	BNZ, Technion	Marcantonini, Università di Perugia
RHAISP	Space	Tower Semiconductor	TSD, RedCat, RGM, U. Calabria, U.Palermo
SEADEST	Marine Tech.	IARD	FLYBY
SHIC	Energy	Sol-Chip	Canova tech
WISEDET	ICT/Environment	Cartasense	SysDesign, CNR-IMM

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Israeli – Italian SUCCESS STORY

IAI, Super Heron Heavy Fuel Engine – powered by Diesel Jet Italy

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IAI – Super Heron

- Significant fuel consumption reduction, around 30%
- Engine automotive derived
- Use of the same fuels that propel jet aviation engines, as kerosene Jet A-1 or JP
- Easier availability, higher safety and lower costs
- Good suitability for turbocharging: high specific power and capability to keep the performance constant with the altitude
- Robustness, reliability and longer maintenance intervals

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SUCCESS STORY
Elbit Systems (Elop) – ELT Roma

MUSIC® / C-MUSICTM

DIRCM Directed IR Countermeasures solutions for aircraft pro

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June 2007

Elbit Systems Ltd. announced that its subsidiary Elbit Systems Electro-Optics Elop Ltd. and Elettronica S.p.A. agreed to cooperate to the joint development of advanced DIRCM systems intended to protect helicopters and wide-bodied aircraft from low altitude attack by shoulder-mounted heat seeking missiles.

June 2011

Elbit Systems announced the signature of supply order for the system's first international customer – the Italian Air Force. The company has been awarded a contract valued in excess of $15 million by Elettronica S.p.A to supply MUSIC based elements for Elettronica's ELT/572 DIRCM system destined for various platforms of the Italian Air Force. The contract will be performed over the next three years.

June 2013

System installed on the 1° EL AL 737

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We are here to help you

- **Identify** quality business opportunities in Israel
- **Connect** with relevant companies and the local business community
- **Advise you** on how to maximize substantial governmental support
- **Expedite** the process of setting up your business in Israel

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Invest in Israel

The Israel Investment Promotion Center
advances high-quality direct international investment in Israel with focus on the following sectors: ICT, New Media, Life Sciences, Renewable energy and Financial Services

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The Israeli Economic & Trade mission to Italy

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Ministry of Economy

InVest in Israel
where breakthroughs happen

Thank you

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