

**START-UP
NATION
CENTRAL**

ISRAEL: INNOVATION ECOSYSTEM



This is Israel



A world map with a red pin on Israel. The map is dark blue with white outlines of continents and countries. The pin is a red sphere on a wooden stick, pointing to the location of Israel in the Middle East.

Total population	9M	
Workforce	3.96M	44%
High-tech	302.7K	8.4%

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Source: [Central Bureau of Statistics](#)

This is Israel



Source: [Canva](#)

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The Israeli Economy

2018 Facts and Figures

❖ GDP (\$ Billions)	390
❖ GDP per Capita (\$)	42.1
❖ Foreign Trade (% of GDP)	56%
❖ Total Exports (% of GDP)	29%
❖ Business Sector Share in GDP	74%
❖ Industry Share of Business Sector	17.5%(2016)
❖ Inflation Rate	1.3%

Israeli Demographics

Facts and Figures, 2018

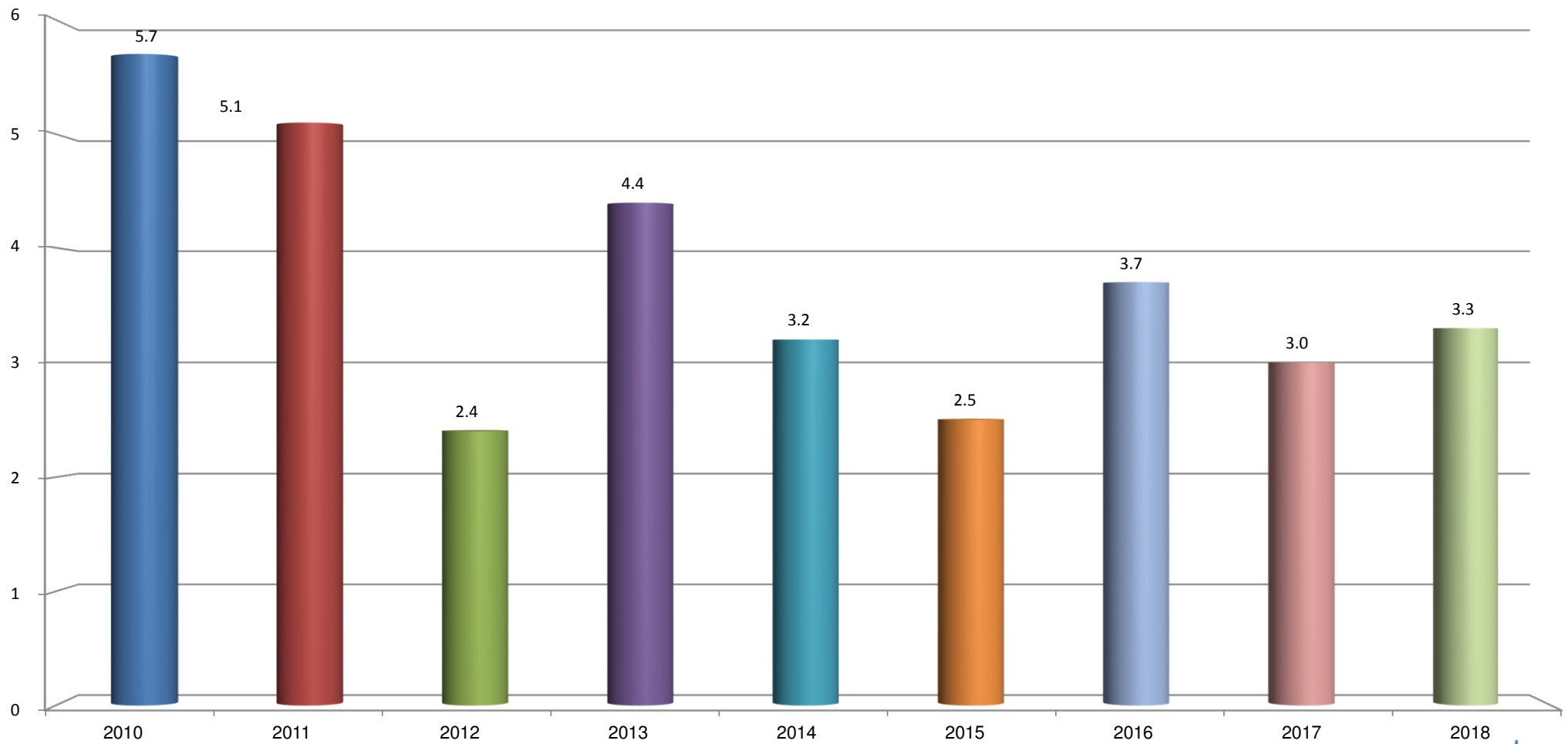


❖ Population (Millions)	8.985
❖ Unemployment	4.1%
❖ Median Age (years)	30.2
❖ Population Growth Rate	1.2%
❖ Life expectancy (years)	82.1
❖ Urban population (% Total)	92.2%
❖ Fertility Rate	3.11%

Source: CBS, The World Fact Book

A High GDP growth rate

%, 2010-2018



Source: OECD



1

start-up

for every **1,430 people**

Global Start-Up Ecosystem Ranking 2019 (Compass.co)

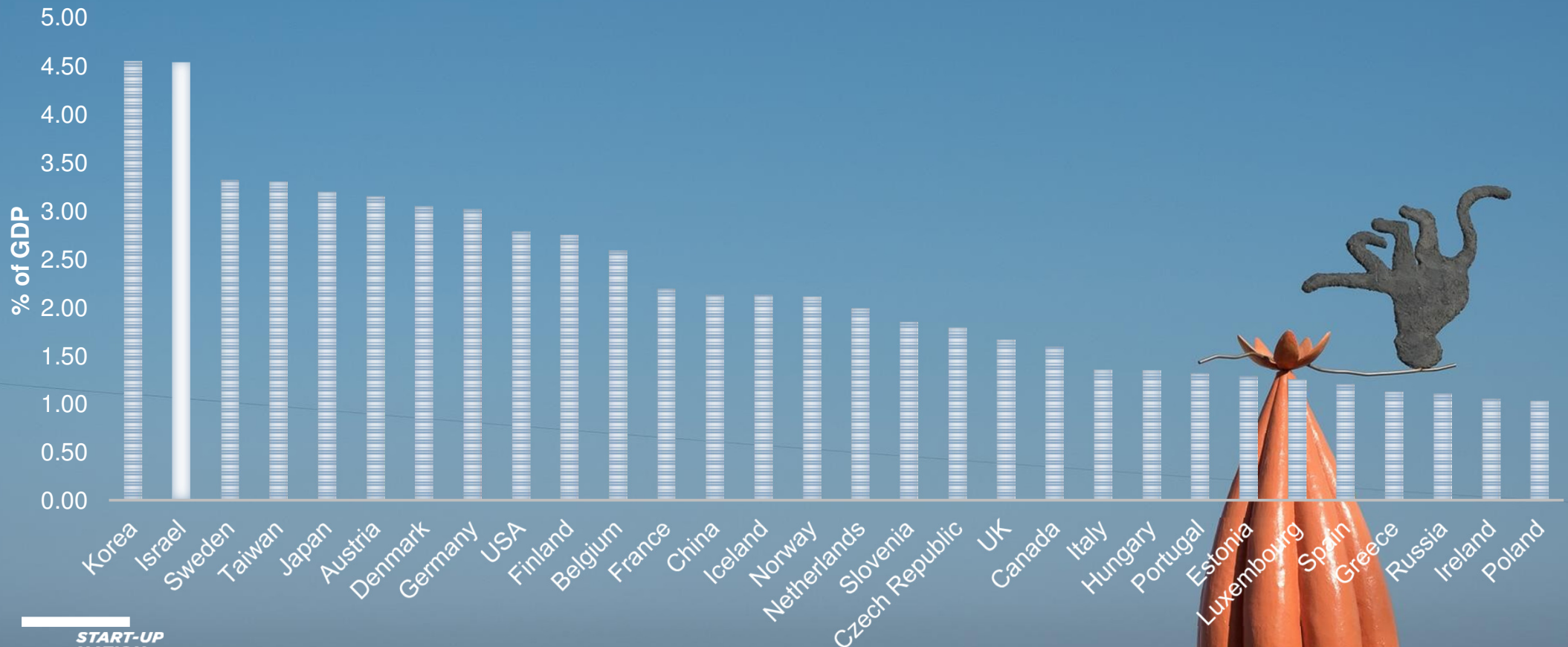
Silicon Valley	1
New York City	2
London	3
Beijing	4
Boston	5
Tel-Aviv	6
Los Angeles	7
Shanghai	8
Paris	9
Berlin	10
Stockholm	11
Seattle	12
Toronto	13
Singapore	14
Amsterdam	15
Austin	16
Chicago	17
Bangalore	18
Washington	19
San Diego	20

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Source: Finder, [Central Bureau of Statistics](#)

The Global Startup Ecosystem Ranking 2016, Compass (August 2016).

R&D Expenditure Ranking



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Source: "Gross Domestic Spending on R&D," OECD (2017)

~340 Multinational R&D Centers



Autodesk



SanDisk



3M

cadence



NOKIA



Microsoft

PayPal

Google



YAHOO!

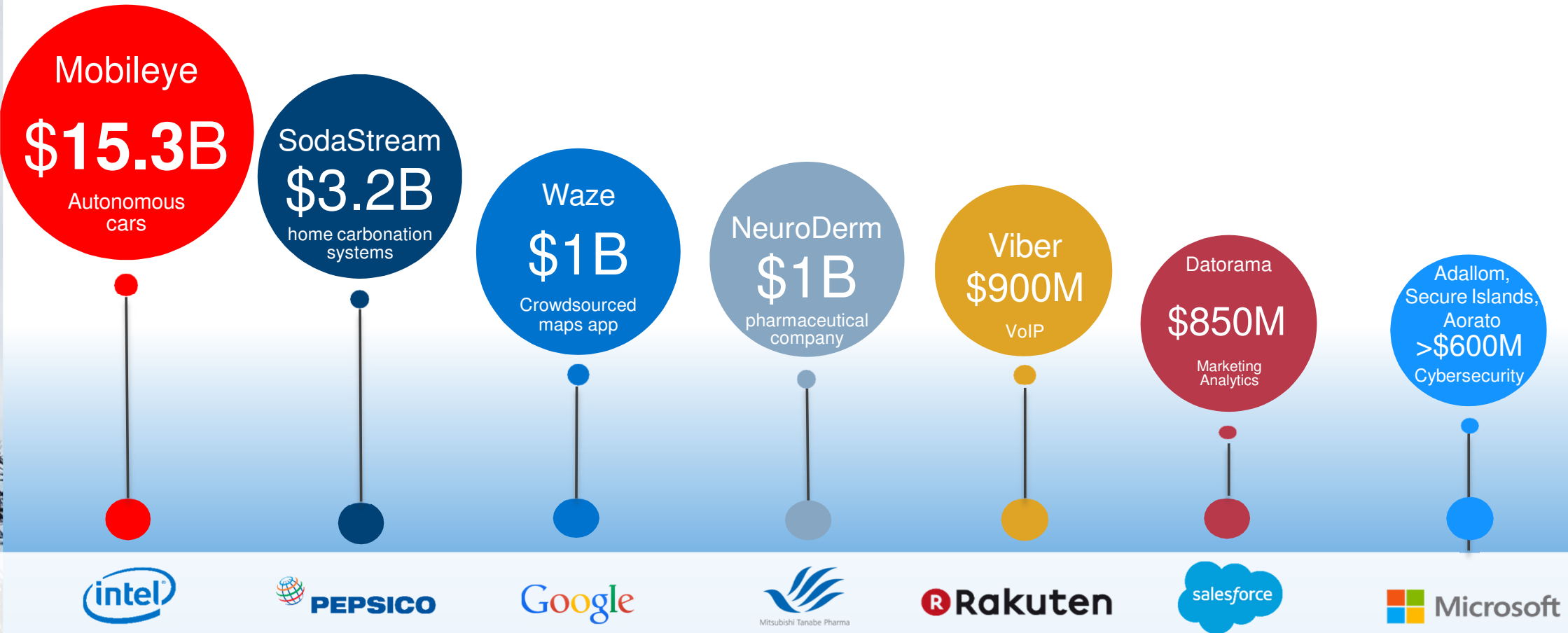


ORACLE



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Recent M&As



Growth and Maturity

Israel has more companies listed on the NASDAQ than any country besides the USA and China.

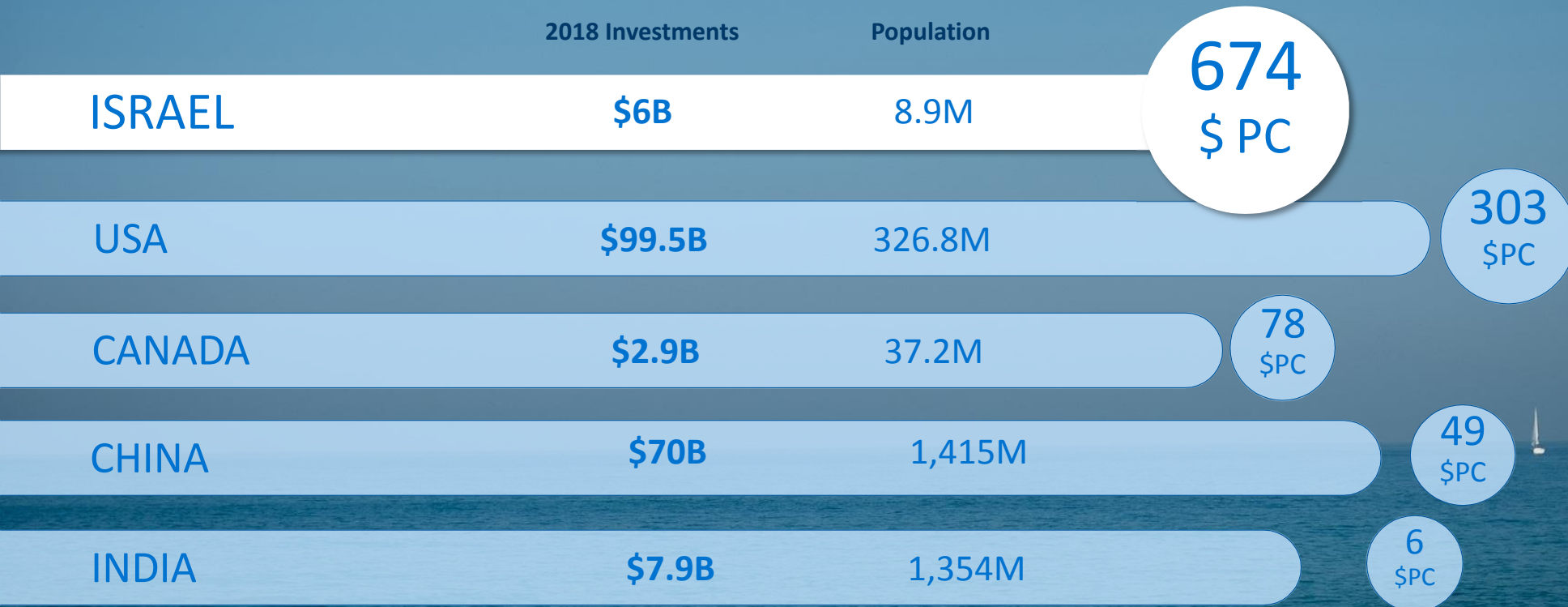
93 NASDAQ-listed Israeli companies have an aggregate \$81 billion market cap

“Companies in Israel,” NASDAQ (Oct 2017) (online)

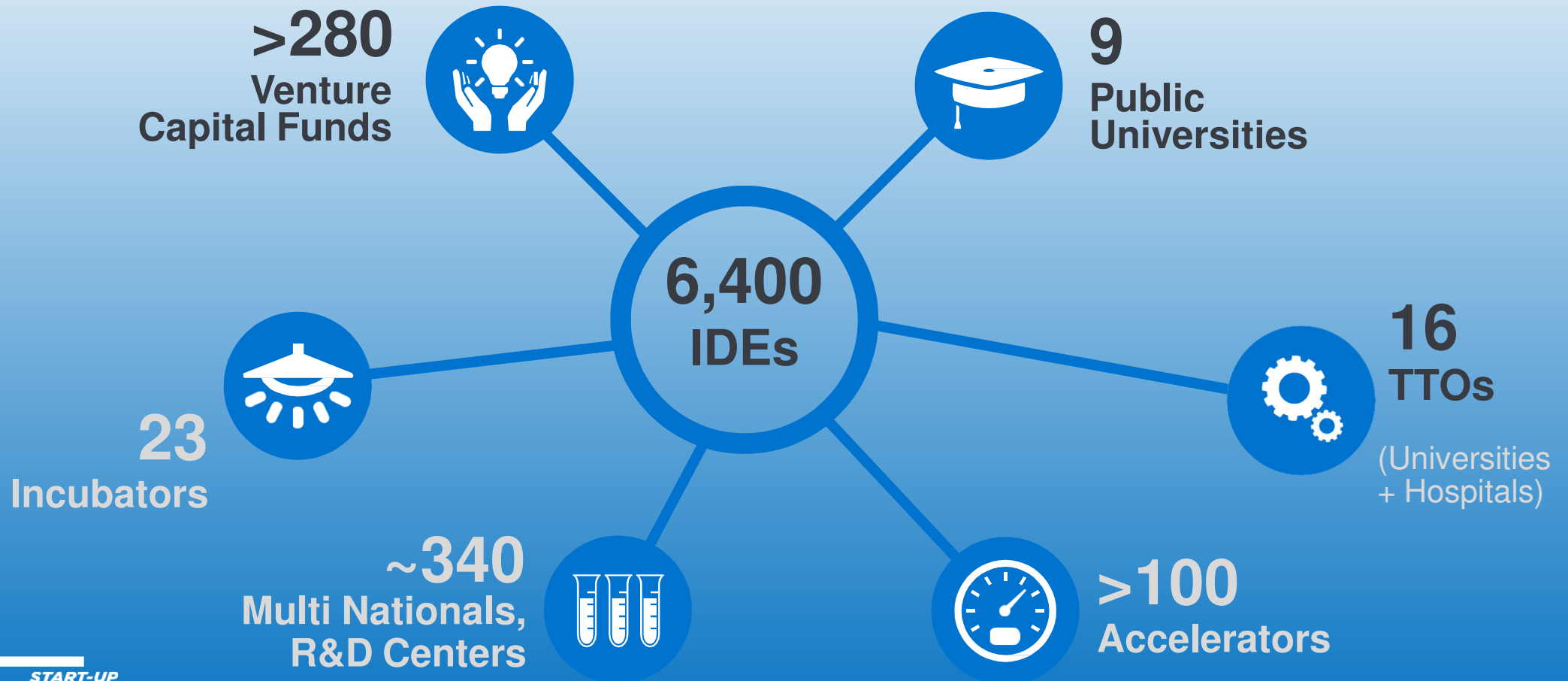
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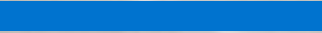
VC Investments Per Capita

Highest in the world

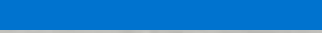


Israel's Start-Up Ecosystem





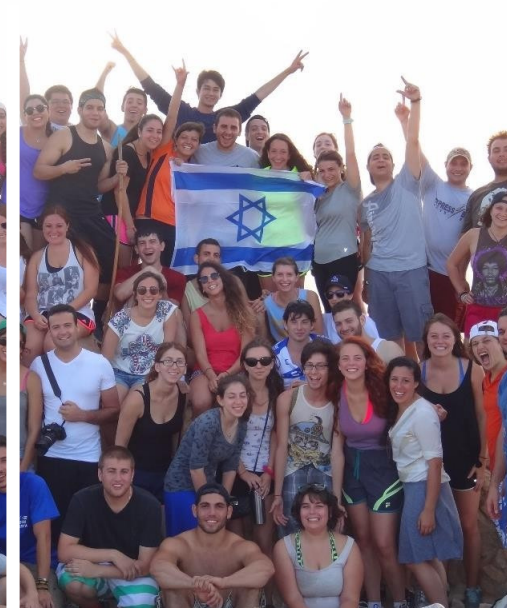
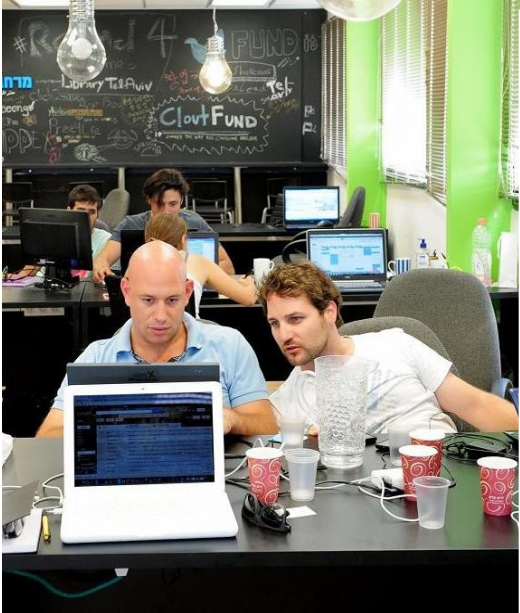
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The History of Israel: Addressing Needs Through Innovation



Key Ingredients



Culture



IDF



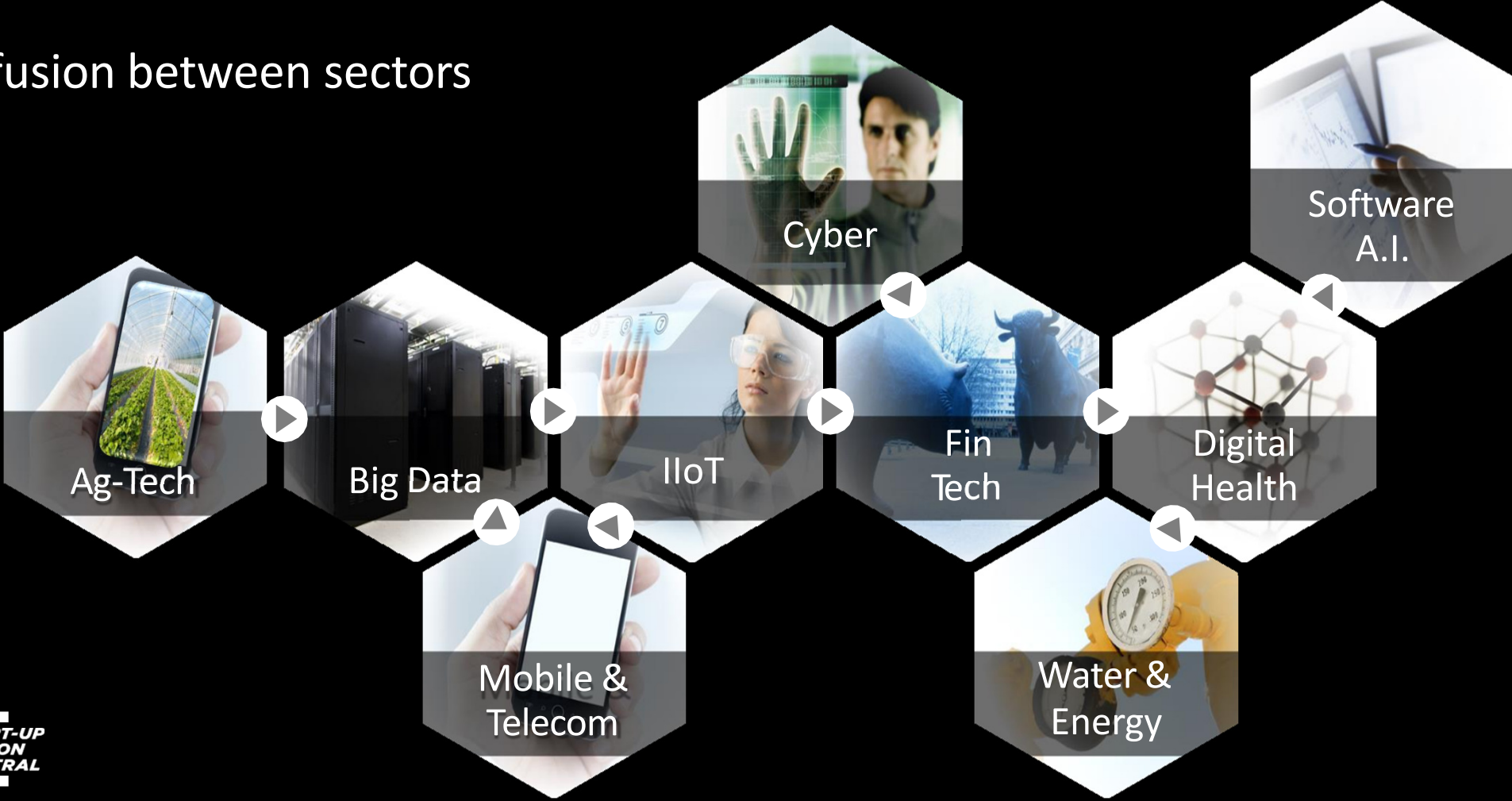
Immigration



Government support

Diversity of Innovation

Diffusion between sectors





Innovation Nation

Innovation, Human Capital & Entrepreneurship

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Israeli Innovations



3D-Printed Heart First 'manufactured' heart with human tissue, cells, and blood vessels



Mobileye

Autonomous driving vision-based advanced driver-assistance systems



GENius

Watergen turns air into pure drinking water



David's Sling

Defense system intercepts enemy rockets, missiles, planes

Israeli Innovations



DIAD: Package Delivered

'Delivery Information Acquisition Device,'
package and parcel real-time tracking



PrimeSense

3D motion sensors map area depth, advanced
facial recognition



Sorek IDE

Largest and most advanced water
Desalination Plant



C-MUSIC (Sky Shield) Aircraft
protective suit against IR missiles

Israeli Innovations



SodaStream Consumer home carbonation product



Heatime

Smart collars for monitoring cows' health and reproduction



Ituran

Vehicle and asset location tracking services



WIX

'Website in an instant,' easy cloud-based web and mobile site development using drag and drop tools.

Multi-sector Innovation

Strong clusters of novelty and innovation across a broad range of industrial sectors

Internet &
New Media

Telecom

Water
Technologies

Health
Industry

HLS &
Aerospace

Renewable
Energies

IT &
Enterprise

Agriculture &
Food

Industrial
Technology

Hub for the World's Top Brands

Over 300 leading corporations have opened development and manufacturing centers in Israel

Internet



Communication



Enterprise



Semi-conductors



Medical



Energy & Water

What's cooking?





News

“Livestock a major threat to environment”

- Major contributor to air pollution
- Requires large areas of land
- Uses huge amounts of water

Fruit Flies as an alternative source of proteins

- Sustainable
- Nutritious
- Safe
- Economic

Fruit Fly - Products



Whole Powder



Low Fat Powder



Dry Larvae



Oil

ZERO EGG

Plant based EGG

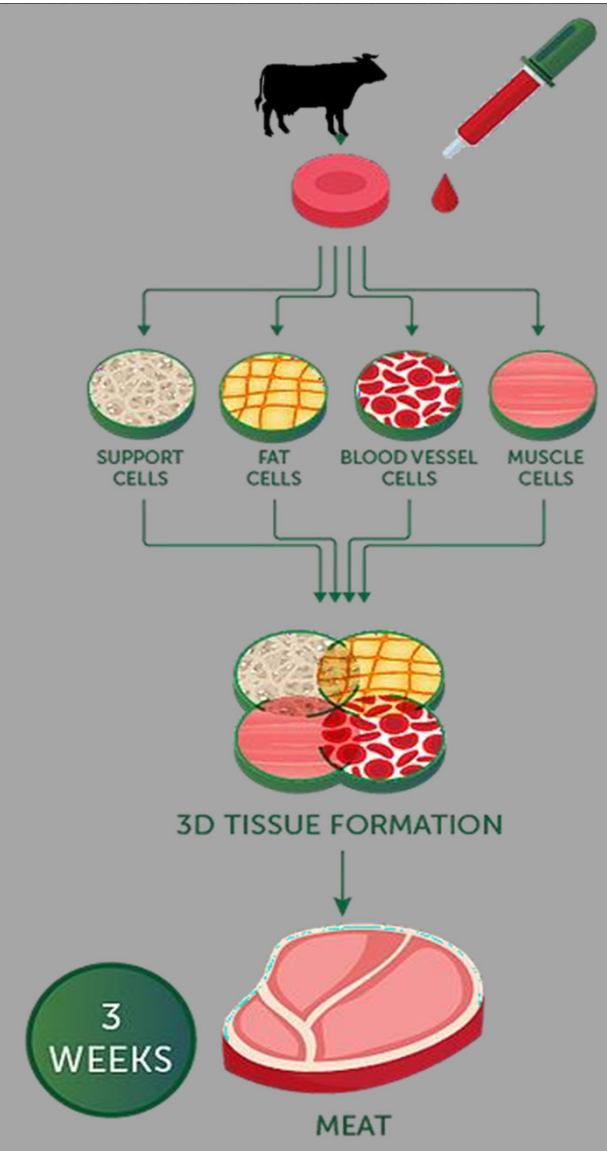
Plant based liquid “egg”
formulation. Can replace egg in all
applications:

- Omelets and scramble
- Mayo
- Cakes and muffins
- Pasta
- Puff pastry and more



 **ALEPH FARMS**

Lab grown meat



The RILBITE logo is a red circle with a white bite taken out of the top, containing the word "RILBITE" in white, bold, sans-serif capital letters with a trademark symbol.

RILBITE™

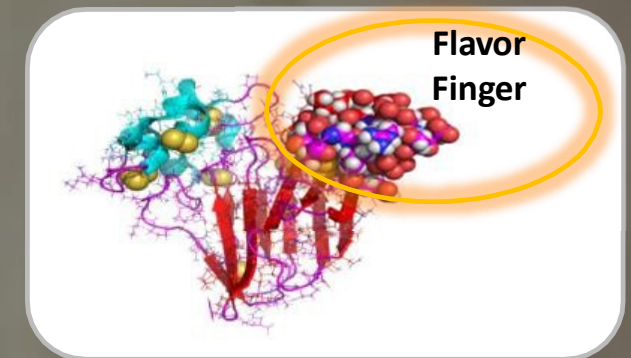
Plant based minced meat

- **Highly nutritious (high proteins, low fat)**
- **Clean label**
- **Short ingredients list**
- **All minced meat applications: Burgers; Meatballs; Meat sauce etc.**
- **Great texture and flavor**



Proteins as flavor agents

Computational Protein Design and
Biotechnology methods
enable the use of proteins as
flavoring agents



Sweetens like sugar
Digested as protein



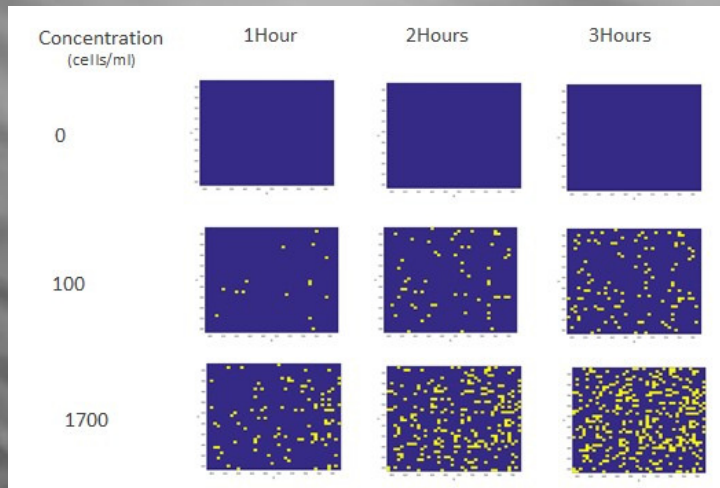
Food Safety

“America’s food industry has a \$55.5 billion safety problem”

FORTUNE

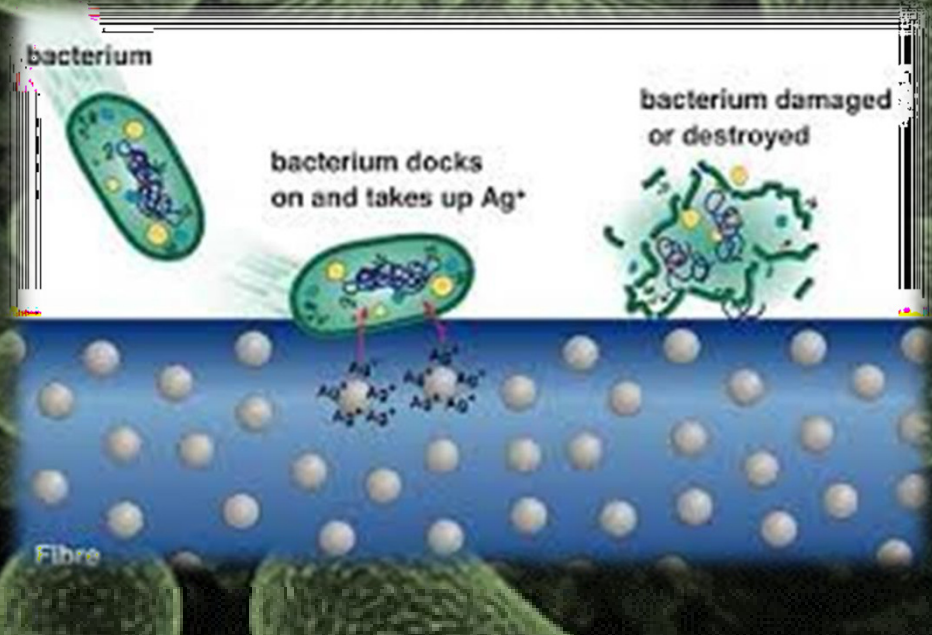
Rapid detection of pathogens

Decreasing bacteria detection time
from days to minutes



Bio-Fence

Antimicrobial, safe and rechargeable
surfaces and coatings





INSPECTO

Know your food

Detection of biochemical contaminations in foods

- Portable
- Fast
- Cost-effective





*Advanced Food Manufacturing
and Industry 4.0*

Easy to deploy, multi-task robots.

Making robots accessible to new industries such as food.

of Robots per 1K employees

Automotive Industry	80
Food Industry	4

250 ISRAELI FOOD START-UPS ARE COOKING UP SOLUTIONS FOR HIGHER QUALITY, HEALTHIER AND MORE SUSTAINABLE FOOD, AND OTHER CULINARY INNOVATIONS





Better industry. Better food.
Better world.
Thank you

Feira K 2019 – Düsseldorf, Alemanha



Nivaldo – Diretor Superintendente
Regina – Diretora de Operações
Jeferson – Engenharia de Processos

17 à 21.10.2019



Feira K 2019

Maior Feira do mundo da
Indústria de Plásticos e
Borracha



The World's No. 1 Trade Fair for Plastics and Rubber

Düsseldorf, Germany

K 2019 was a complete success

Exhibitors and visitors agree:

K 2019 was a complete success

K succeeded in confirming its position as the world's leading trade fair for the plastics and rubber industry in 2019. Almost 225,000 trade visitors from 165 countries made their way to Messe Düsseldorf from 16 to 23 October 2019. With 3,333 exhibitors along the entire value chain, the high level of the last K was even exceeded. As in the past, both visitors and exhibitors were extremely satisfied. During K 2019, circular economy emerged as the most important topic for the industry- an industry that is working on solutions for a responsible and sustainable use of plastics and has already presented many concrete solutions. This was also reflected in the atmosphere of optimism and by the high willingness to invest.



Touchpoint Circular Economy








CIRCULAR ECONOMY #K
 PLASTICS SHAPE THE FUTURE

BASF
Hall 5.0121-D21

CHEMCYCLING

For BASF, Circular Economy means decoupling economic growth from the use of finite resources. This requires more durable and more resource-efficient products and an increase in new business models for reuse, repair and recycling.

Customers and consumers are asking for more sustainable solutions to reduce waste, save emissions, or enable a sharing economy. Chemistry plays a key role in many value chains of the mobility, packaging, construction or agricultural industries.

By developing circular approaches with partners in the different industries, the chemical sector can contribute to more circularity in these value chains. For example, chemical recycling can help to reduce and reuse plastic waste.


Chemcycling



- Embalagem multilayer para mussarela



Styropor P CCycled - Caixa de Pescado



CIRCULAR ECONOMY • K
PLASTICS SHAPE THE FUTURE

INEOS Styrolution

Hall 6/D28

Polystyrene. Made for recycling.

In a process called depolymerisation, polystyrene is broken up into its basic building block, styrene monomer. This is then converted back to polystyrene, thus creating a closed loop recycling process: a significant step towards a circular business model for styrenics.

What's more: the recycled polystyrene has identical quality and properties to that of virgin polystyrene. Following intensive research and successful recycling runs, INEOS Styrolution is working with leading technology partners in the industry to commercially scale up the use of recycled styrene in its products in 2021.

INEOS Styrolution. We close the loop for you.

INEOS Styrolution – depolimerização e volta a monômero de estireno



- EREMA - Circular Centre



- Borealis e peças de poliolefinas reciclados em eletrodomésticos



- Engel - Sanduiche com camada de alto conteúdo de reciclado



- SABIC - polímeros: certificado de reciclagem química circular, bio-renováveis, reciclagem mecânica, design para reciclagem



- Braskem - Biobased PE - 3 Layers com interno espumado




CIRCULAR ECONOMY & E
PLASTICS SHAPE THE FUTURE

German Association of the Plastics Converters (GKV)
 Hall 8A/FII-I

ERDE Recycling – Together for the environment

ERDE is a unique take-back concept for harvest plastics in Europe. Large quantities of silage stretch films, flat silage films, underlay films and other plastic products are used in agriculture. Especially in such a nature-oriented industry, these must not pollute the environment after use.

Members of the IK Industrievereinigung Kunststoffverpackungen e.V. have taken a joint initiative for environmental protection to promote sustainable agriculture and resource-conserving work.

GKV promovendo a economia circular de filmes agrícolas

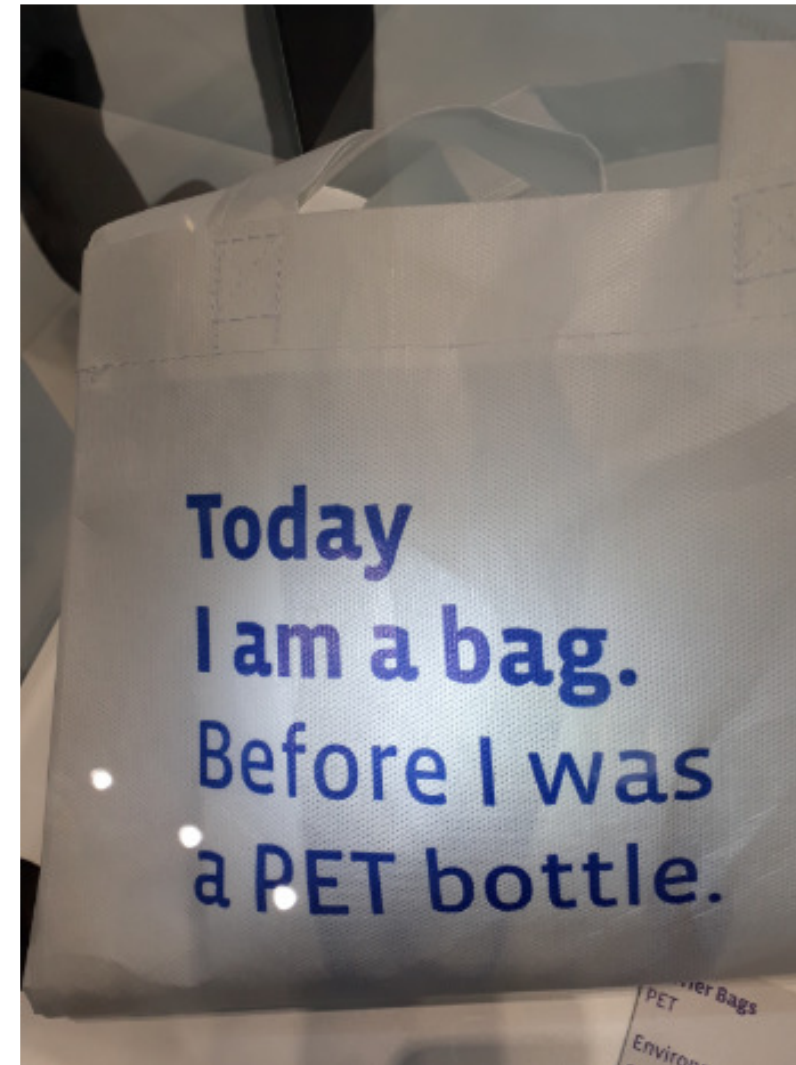


- ARBUG - processamento de reciclados na prática



- Krauss Maffei - Polymore - Nova empresa para comércio de material reciclado

Posicionamento

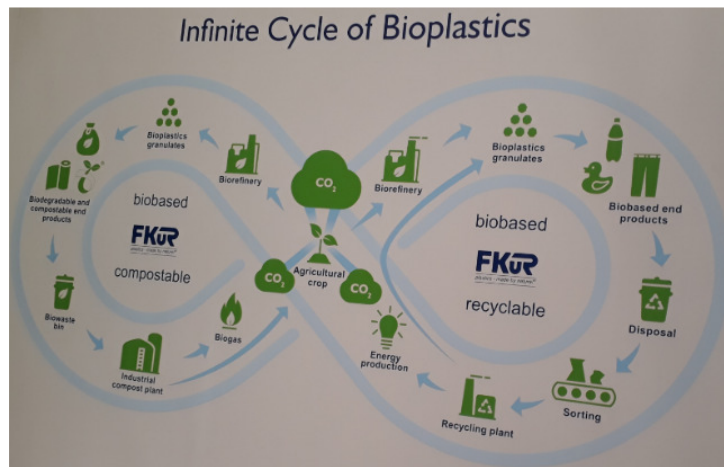


Reciclagem Mecânica

Reciclagem Química

BioBased

Materiais Compostáveis



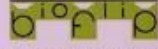
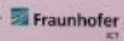




4 a 5 vezes
mais caro



- Synbra - BioFoam (PLA)



- Fraunhofer em parceria com a Erlenbach (PLA)

BIOPOLYMER	
description:	pallet
moulded density:	58 g/l
material:	PLA particle foam by Fraunhofer ICT 
machinery:	EMMotion 5.0 1270/870
Projectpartner:	
    	

Plásticos Compostáveis

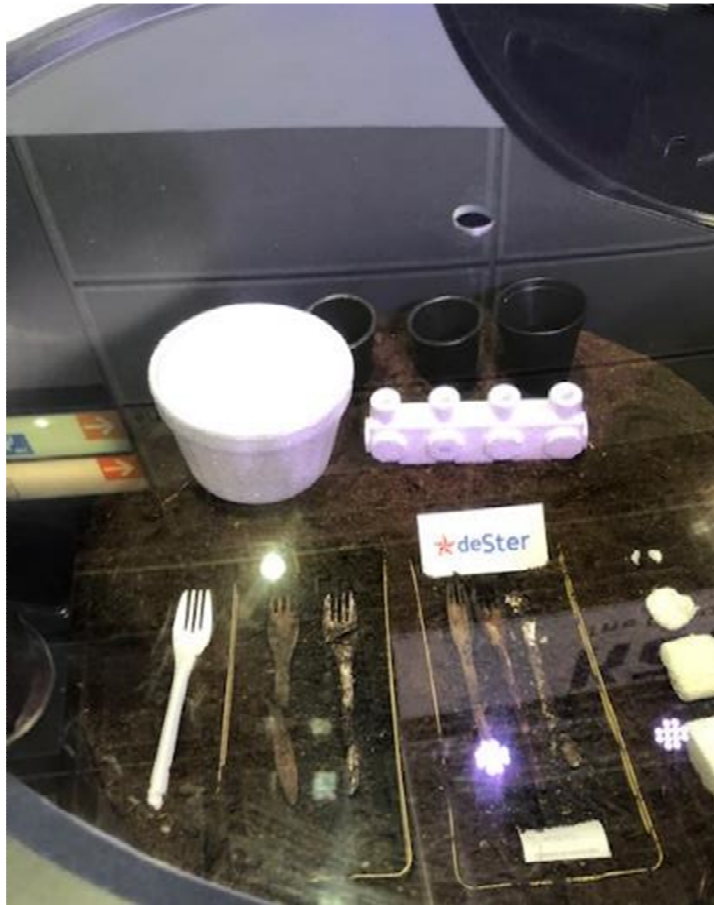
4 a 5 vezes
mais caro



- Ecovio

- 30% fóssil mas compostável
- Em desenvolvimento
- Requer ajuste dos equipamentos

kaneka



SEKISUI



Novos Materiais (mais resistência mecânica, mais elasticidade e maior resistência térmica)

Encontro CNI em Brasília



OPORTUNIDADES PARA O BRASIL

ECONOMIA CIRCULAR

OPORTUNIDADES PARA O BRASIL

A economia circular tem o potencial de criar novas cadeias produtivas, reduzir custos e gerar empregos por meio do melhor uso dos materiais.

Pesquisa da CNI mostra que 88,2% dos gestores avaliam a economia circular como importante para a indústria brasileira e 73% acreditam que a cooperação entre governo, setor privado e consumidores deve ser promovida.

O Brasil precisa de uma estratégia nacional para a economia circular que



Construção de políticas públicas que incentivem a transição para uma economia circular



Tratamento fiscal adequado às atividades associadas ao reaproveitamento e recuperação energética de resíduos;

Fortalecimento da imagem do Brasil
faz hor

MODERNIZAÇÃO DAS RELAÇÕES DE TRABALHO

CONTRATO VERDE-AMARELO (MP 905/2019)



Portaria n. 211 do Ministério da Economia

- Autorização para guarda eletrônica de documentos de Saúde e Segurança do Trabalho (SST)



MP 889/2019

- Fim do adicional de 10% do FGTS em demissões sem justa causa



Convenção 98 da OIT

- Defesa da reforma trabalhista na Conferência Internacional do Trabalho, em Genebra



Lei da Liberdade Econômica

- Criação da Carteira de Trabalho



REFORMA TRIBUTÁRIA

PRINCIPAIS PONTOS DEFENDIDOS PELA INDÚSTRIA



Criação de um **IVA NACIONAL** que substitua tributos federais, estaduais e municipais (ICMS, PIS-Pasep, Cofins, IPI, ISS e IOF).



Criação de **IMPOSTO SELETIVO** que incidirá apenas sobre bens de consumo final que se queira inibir a demanda.



Buscar **MAIOR EQUILÍBRIO** na distribuição da carga tributária entre os setores econômicos



▶ Faturamento da indústria cresceu pelo 5º mês consecutivo em outubro: +1,3% com relação a setembro

▶ Índice de utilização da capacidade instalada da indústria brasileira 78% pontos em outubro

▶ Índice de Confiança do Empresário Industrial (ICEI) ficou 62,5 pontos em novembro: 7,9 pontos acima da média histórica

▶ Índice Nacional de Expectativa do Consumidor (INEC) subiu para 47,3 pontos em setembro

▶ Em outubro, a **INDÚSTRIA DA CONSTRUÇÃO** registrou crescimento de 7,7 anos



INDICADORES DA
CONFIRMAÇÃO

Muito obrigado!

