

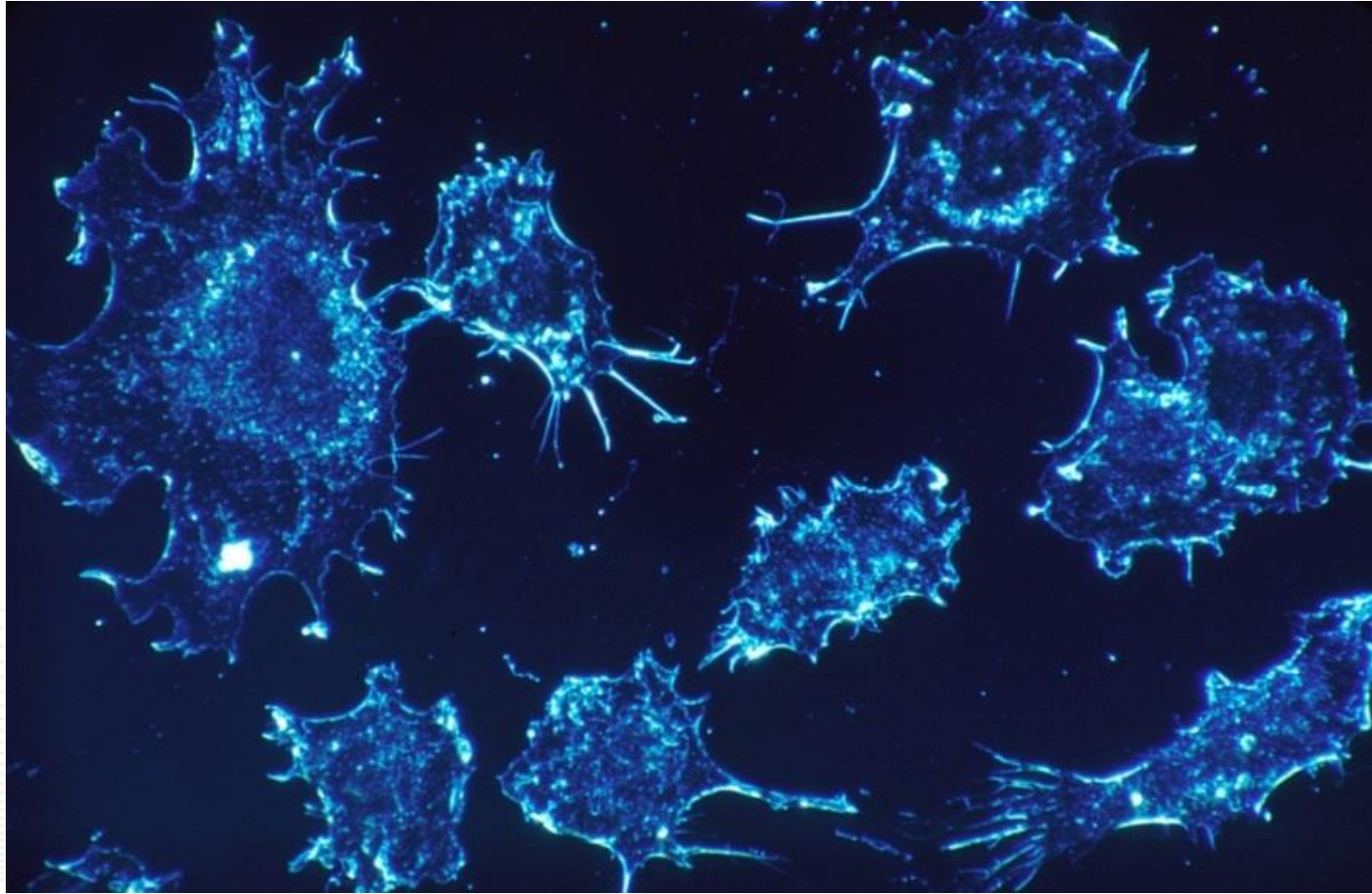
BİYOTEKNOLOJİDE TEKNOLOJİ TRANSFERLERİ

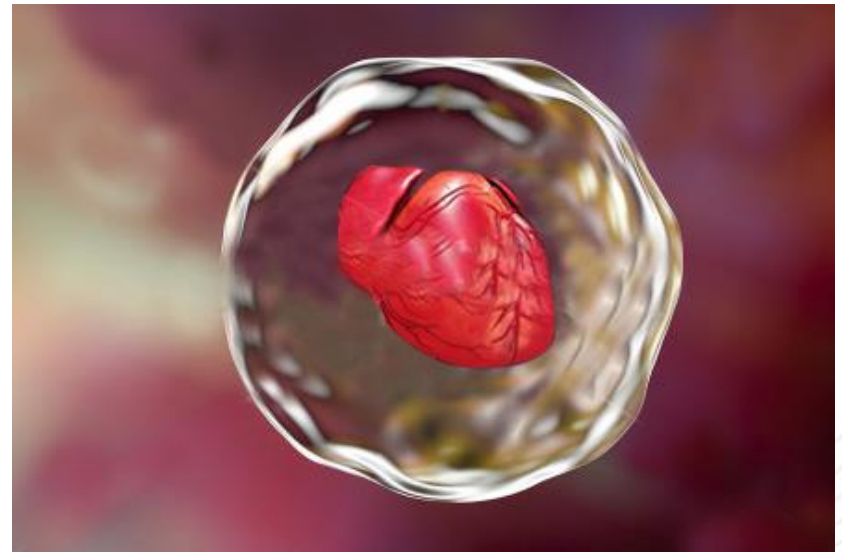
DR. ERCAN VARLIBAŞ
VSY BIOTECHNOLOGY
YÖNETİM KURULU BAŞKANI



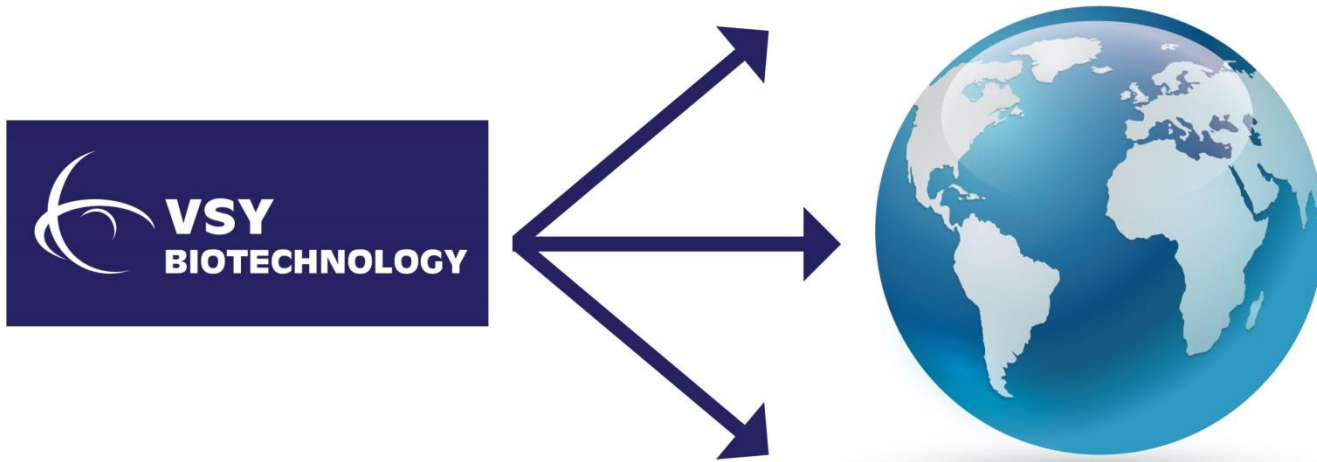
USİMP PATENT FUARI

BİYOTEKNOLOJİ

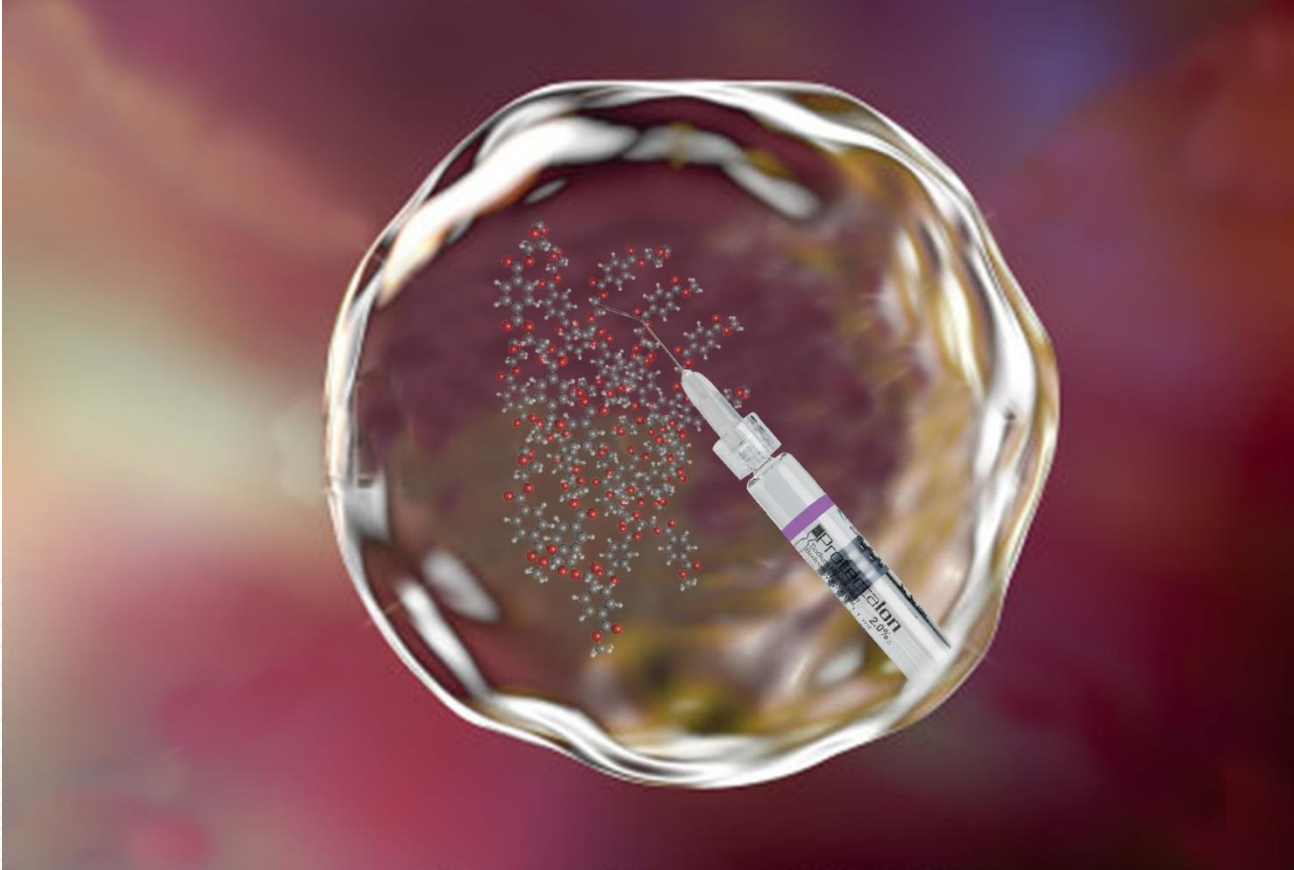




VSY BIOTECHNOLOGY'DEN DÜNYAYA



VSY BIOTECHNOLOGY NE YAPIYOR?



SODYUM HYALURONAT NERELERDE KULLANILIYOR?

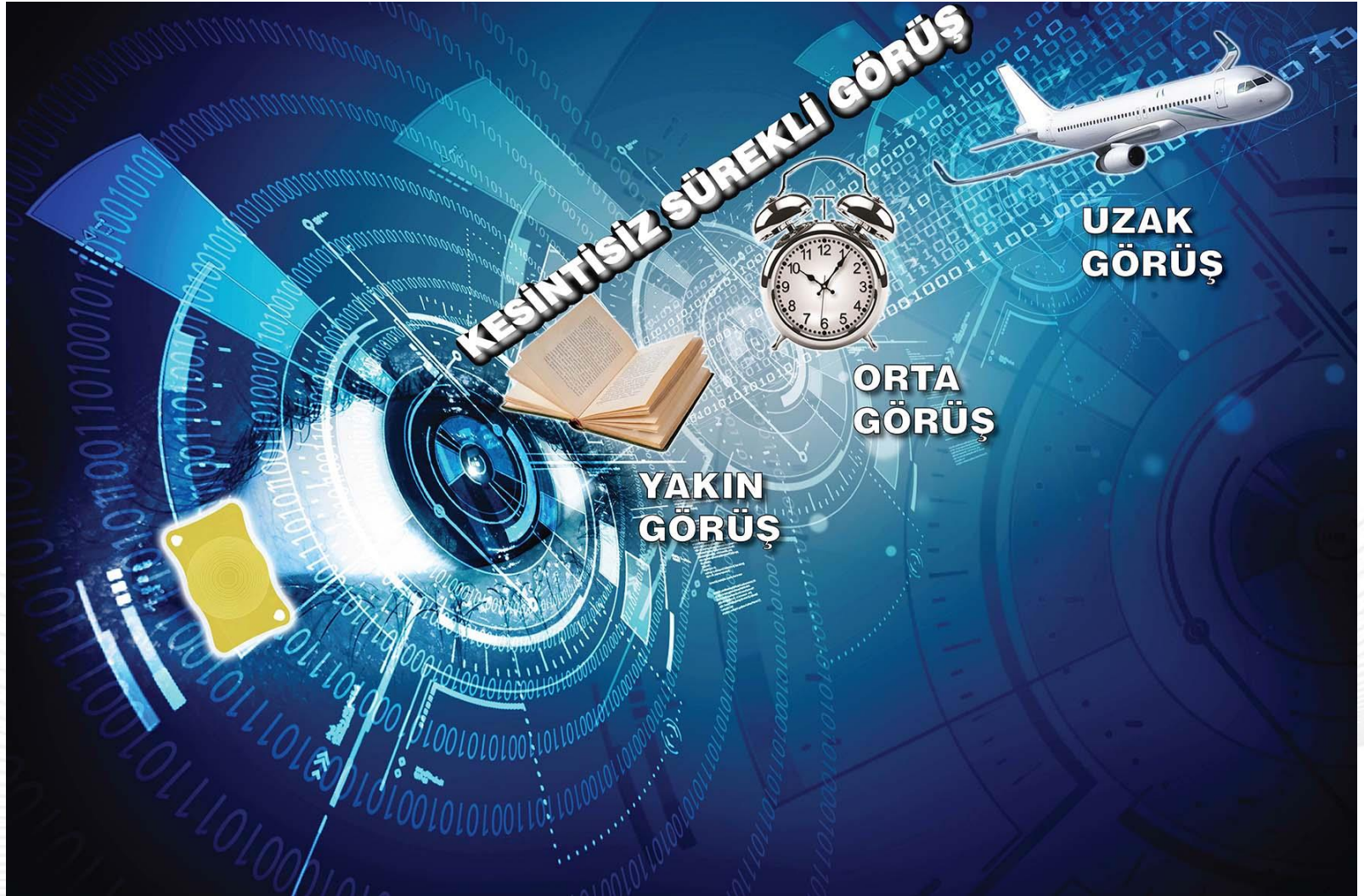


Göz - PROTECTALON

Kozmetik - AVİLLON



**Ortopedi ve Fizik Tedavi &
Rehabilitasyon - REVİSCON**



TÜRKİYE’NİN KATMA DEĞERİ EN YÜKSEK ÜRÜNÜ: TRI-ED GÖZ İÇİ LENSİ

□ 1 KG. İHRACAT DEĞERİ: 675.000 \$



TÜBİTAK, TTGV, TÜSİAD Teknoloji Ödülleri 2016 TÜRKİYE BİRİNCİSİ



Türkiye İnovasyon Liderleri İnovasyon Sonuçları Kategorisi 2016 TÜRKİYE BİRİNCİSİ



European Business Awards Büyüme Stratejisi Kategorisi 2016 TÜRKİYE BİRİNCİSİ



T.C. Ekonomi Bakanlığı ve TİM, Marka Türkiye Kapsamında Türkiye Markasına Değer Katanlar Kategorisi Katma Değer Üreten Marka Ödülü, 2017 TÜRKİYE BİRİNCİSİ



- ❖ İhracatın Yıldızları /Türkiye'nin Gizli Şampiyonları 2017 yarışmasının “Ar-Ge Merkezi İnovasyon Kategorisi” Türkiye Birincisi
- ❖ 2016'da gerçekleşen yüzde 220,3 büyüme oranı ile “TOBB'un En Hızlı Büyüyen Şirketleri” Ödülü'nün Sahibi



DÜNYADA VSY BIOTECHNOLOGY

REUTERS MEDIA EXPRESS

Revolution in Cataract Surgery Treatment with New Patent Pending

Oct 17 (Reuters) - Revolution in Cataract Surgery Treatment with New Generation Patent Pending

Sinusoidal Trifocal IOL

VSY Biotechnology's New Generation Trifocal Intraocular Lens (IOL) AcrivaUD Trinova Presents Superior Visual Performance and Provides Spectacle-free Life

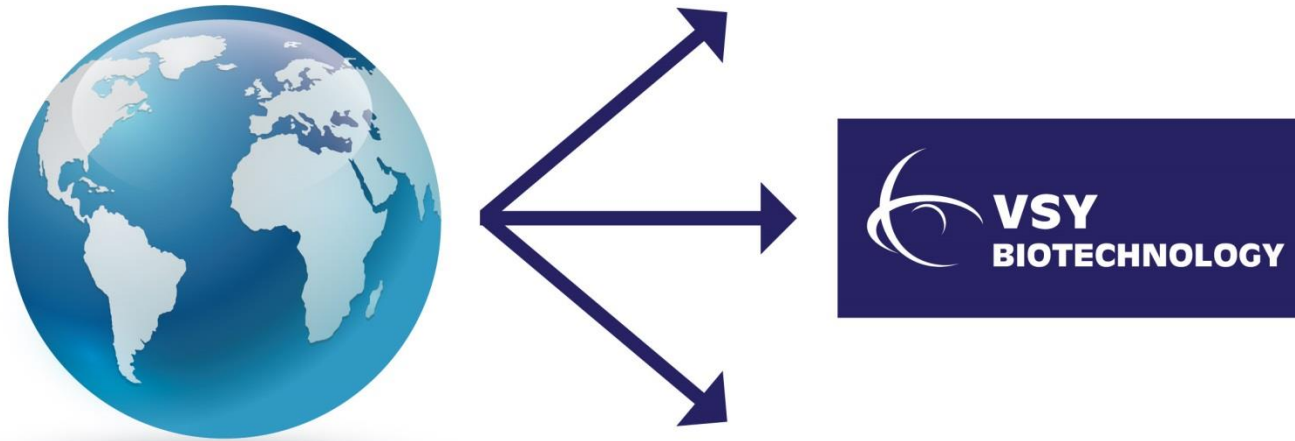
VSY Biotechnology announced AcrivaUD Trinova Trifocal IOL in European Cataract and Refractive Society Congress (ESCRS) which held in Lisbon, Portugal on 7-11 October, 2017.

AcrivaUD Trinova is manufactured with Sinusoidal pattern and Seamless Vision Technology (SVT) that is invented by VSY Biotechnology. Thanks to SVT, the new trifocal IOL enables optimal vision at near, far and intermediate distances as well as it corrects astigmatism. Its special design allows continuous vision at all light conditions and reduces halos and scattered light. As a result patients enjoy spectacle-free life.

It is common to observe around 15-20% light loss in traditional trifocal IOLs which affects directly the quality of vision. With the new generation trifocal IOL, AcrivaUD Trinova, light transmission reaches up to 92% meaning the light loss is reduced down to only 8%. Therefore, it promises higher contrast sensitivity and dynamic visual performances at all distances even at dim light conditions.

Patent pending AcrivaUD Trinova Trifocal IOL will be available in all countries to meet the demands of ophthalmology industry. "We aim to make ophthalmologists and cataract patients happy with VSY Biotechnology's new generation trifocal IOL, AcrivaUD Trinova. After operation, patients will see very well without glasses. AcrivaUD Trinova's technology solves myopia, hyperopia, presbyopia and also astigmatism. Our main goal is to increase people's life quality" says Dr. Ercan Varlıbaşı, Chairman of VSY Biotechnology.

DÜNYADAN VSY BIOTECHNOLOGY'E



468 MİLYAR USD



BİYOTEKNOLOJİ FİRMA SAYISI

Biyoteknoloji alanında en fazla firmaya sahip olan ülke ABD.

ABD’de bilinen faal biyoteknoloji firma sayısı: 6.862

ABD’yi firma sayısı bakımından **İspanya, Fransa, Güney Kore, Brezilya, Almanya** izliyor.

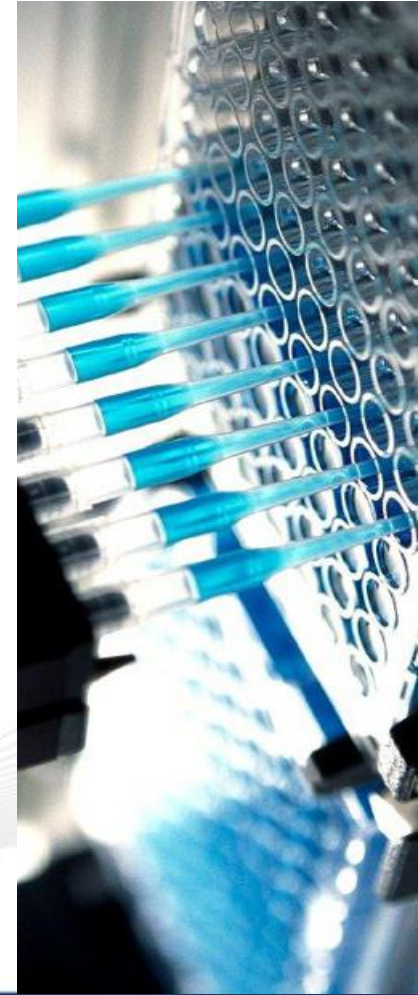


BİYOTEKNOLOJİDE KAMU HARCAMALARI

ABD'nin kamu Ar-Ge harcaması 2011 yılında 18 milyar ABD Doları olarak kaydedilmiştir.

Almanya, Güney Kore ve İspanya'nın biyoteknolojiye en fazla harcama yapan ülkeler olduğu görülüyor. Ülkelerin toplam kamu sektörü Ar-Ge harcamalarında biyoteknoloji Ar-Ge harcamalarının oranı Almanya %20,52, G. Kore %18,9 İspanya ise %14,8.

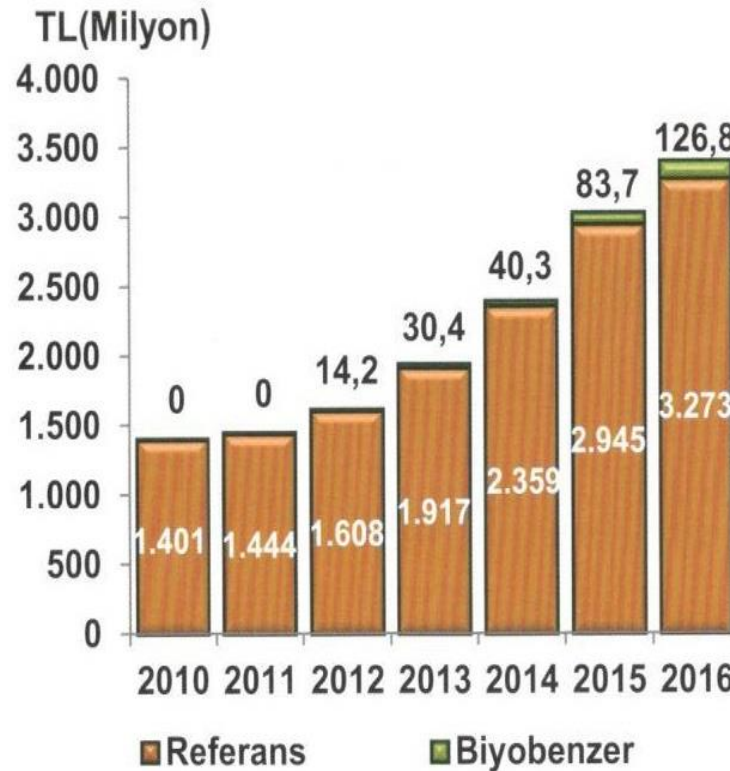
(Kaynak: OECD Biyoteknoloji Göstergeleri, 2014)



2016'da 1 Milyar \$

Biyoteknolojik İlaç Endüstrisi

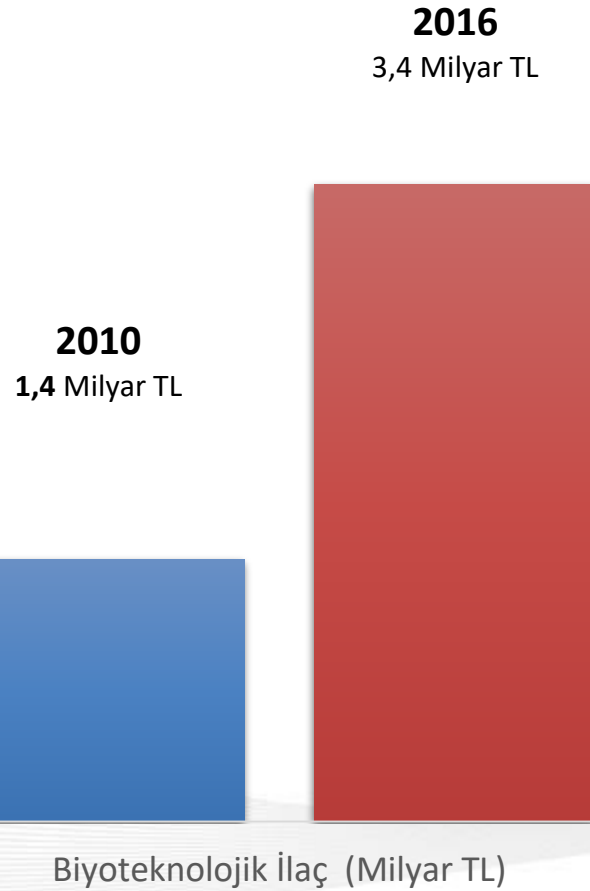
Grafik 11- Biyoteknolojik İlaçlar (Değer)



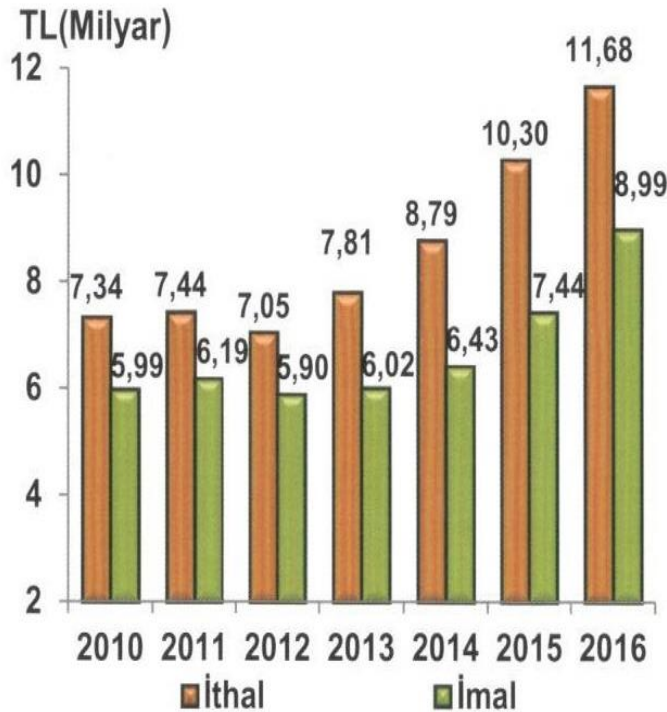
Kaynak: IMS, İEİS

(2016)

Biyoteknolojik İlaç Endüstrisi

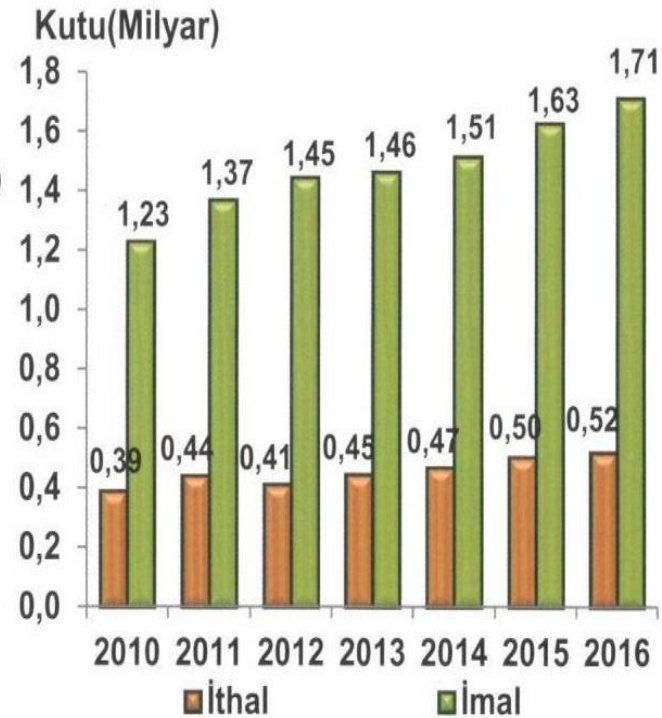


Grafik 7- İthal-İmal İlaçlar (Değer)



Kaynak: IMS, İEİS

Grafik 8- İthal-İmal İlaçlar (Kutu)



Kaynak: IMS, İEİS

(2016)

Biyoteknolojik İlaç Endüstrisi

Tamamı ithal edilen 14 biyobenzer ürünün Türkiye’de üretilmesi ile yıllık 2 milyar 50 milyon TL (2016) değerindeki ithalata dayalı kamu alımı yerli ürünlerle ikame edilebilecektir.

Ürün Molekül	Ana Tedavi Alanı	Originator	Biyobenzer Sayısı	Yeri İmal	Tedavi Sınıfı	Satış Adet 2016	Satış TL 2016
Grand Total						5.939.017	2.030.172.791
Ranibizumab	Neovascular (wet) Age Related Macular Degeneration	Lucentis - Novartis	0	No	S01P0 OCULAR ANTINEOVASC.PRODS	221.276	209.660.100
Rituximab	Oncology / Hematology	Mabthera - Roche	0	No	L01G0 MAB ANTINEOPLASTICS	102.911	114.080.275
Filgrastim	Oncology / Hematology	Neupogen - Amgen	4	No - Yes 30 M	L03A1 COLONY-STIMULATING FACT.	419.438	80.741.321
Pegylated Filgrastim	Oncology / Hematology	Neulastim - Amgen	0	No	L03A1 COLONY-STIM. FACT.		
Teriparatide	Women's Health	Forsteo - Lilly	0	No	H04E0 PARATHYROID HORM&ANALOGS	17.461	6.301.034
PegErythropoetin	Anemia	Mircera - Roche	0	No	B03C0 ERYTHROPOIETIN PRODUCTS	541.194	118.237.867
Interferon alpha 2b	Heapatology / Virology	Nitron A - MSD	0	No	L03B1 INTERFERONS ALPHA	168.965	8.791.571
Peg Interferon alpha 2b	Heapatology / Virology						
Human Normal Immunoglobulin for Intravenous Use Solution	Immunisation	Human Base	6	No	J06C0 POLYVAL IMMUNO-GLOBLN I.V	196.244	344.805.953
Etanercept	TNF	Enbrel - Pfizer	0	No	L04B0 ANTI-TNF PRODUCTS	639.361	452.501.700
Follitropin Alpha	Women's Health - FSH	Gonal F - Merck Serono	0	No	G03G0 GONADOTROPHINS	2.420.398	116.773.576
Freeze Dried Human Coagulation Factor IX IP/EP	Blood Products	Blood Factor	5	No	B02D1 FACTOR VIII	474.826	284.405.326
Dried Human Antiheamophilic Factor VIII IP/EP	Blood Products	Human Base	6	No	B02D2 FACTORS II VII IX AND X	81.593	59.540.005
Erythropoetin	Nephrology	Epogen - Amgen	4	No	B03C0 ERYTHROPOIETIN PRODUCTS	541.194	118.237.867
Erythropoetin	Oncology / Hematology						
Bevacizumab	Oncology	Altuzan - Toche	0	No	L01G0 MAB ANTINEOPLASTICS	102.911	114.080.275
Human Albumin Solution IP/EP	Blood Products	Human Base	10	No	K03B3 PROTEIN SOLUTIONS >5%	11.245	2.015.920

Öncelikli Üretimi Planlanan 14 Biyoteknolojik Biyobenzer Ürün ve Kamu Alım Miktarı – Kaynak IMS

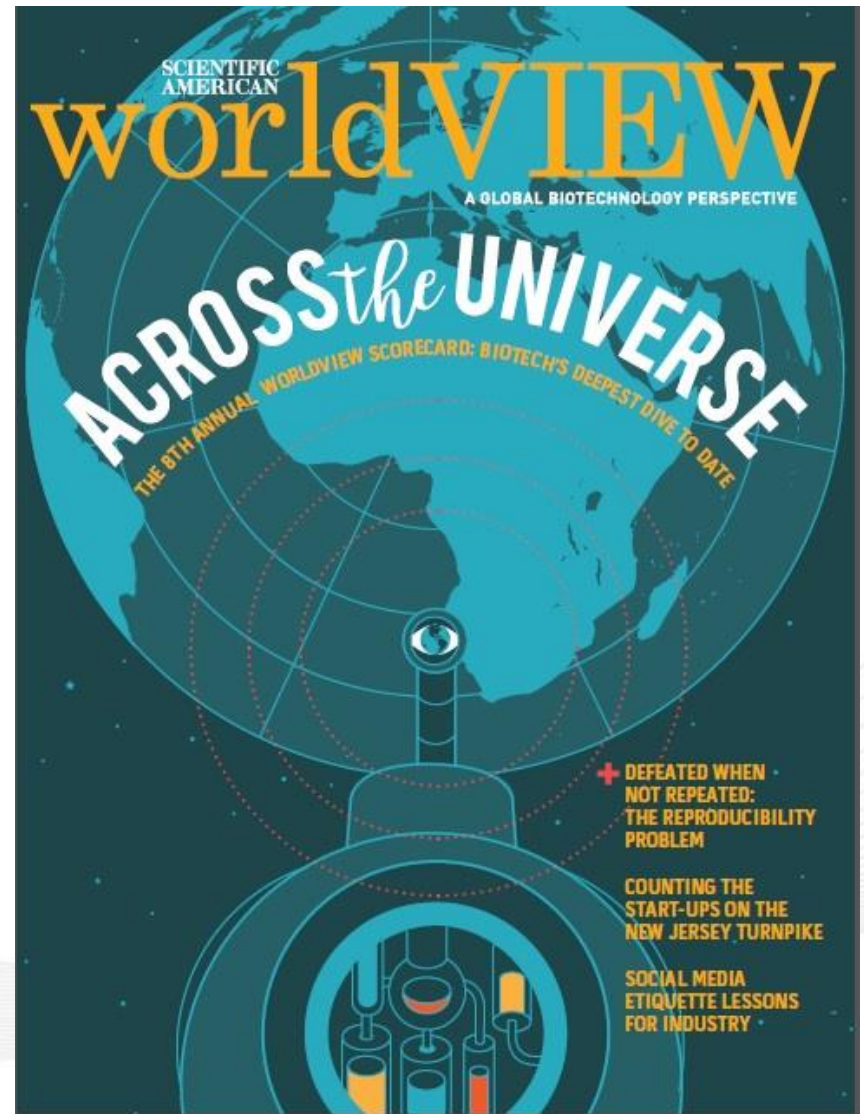


TÜRKİYE BİYOTEKNOLOJİ PATENT BAŞVURULARINDA ALT SEVİYELERDE

Biyoteknoloji patent başvurularının tüm patent başvurularına oranı incelendiğinde en yüksek paya sahip ülkeler; ABD, AB, Japonya, BRICS ve Almanya. Türkiye % 0,03'lük bir oranla alt seviyelerde.



(Kaynak: TÜİK NACE REV.2)



Scientific Amerikan Worldwive 2016

RANK		1.1	1.2	2.1	2.2	3.1	3.2	3.3	3.4	3.5	3.6	4.1	4.2	4.3	4.4	5.1	5.2	5.3	5.4
1	UNITED STATES	10.0	10.0	10.0	8.5	4.1	3.6	9.0	5.2	10.0	10.0	8.4	10.0	8.1	9.2	4.4	5.4		
2	SINGAPORE			7.0	9.7				7.4	0.1		10.0		8.4	9.3			5.7	7.0
3	DENMARK	0.2	0.3	9.1	7.9	6.2	10.0	10.0	10.0	0.1	0.4	9.1	0.2	2.5	8.2	4.2	2.0	9.3	
4	NEW ZEALAND	0.0	0.0	6.1	9.4				9.6	0.1		9.8		6.9	6.9	10.0	10.0	4.5	
5	AUSTRALIA	0.5	1.4	6.8	8.5	8.0	4.6	5.2	7.0	0.9	0.0	7.8	0.3	3.8	8.4	7.0	5.8	5.3	5.3
6	SWITZERLAND	0.2	0.4	7.5	9.7	5.9	3.2	4.4	4.1	0.3	0.9	6.5	0.3	5.6	8.7	3.6	3.3	7.2	
7	FINLAND	0.0	0.1	9.1	10.0	1.6	0.0	0.1	1.1	0.1	0.0	8.1	0.1	8.1	8.3	3.6	2.0	9.0	
8	UNITED KINGDOM	0.6	0.8	8.5	9.1	1.6	0.8	3.4	4.1	1.4		8.5	0.8	6.3	9.3	7.6	6.4	5.1	2.3
9	SWEDEN	0.1	0.5	8.5	8.5	6.7	1.1	1.8	2.2	0.3	0.1	8.3	0.5	5.9	8.4	2.5	2.3	7.3	
10	CANADA	0.0	0.9	9.1	8.5	3.5	0.2	0.1	3.3	0.8	0.1	7.8	1.0	5.6	10.0		6.4	5.3	4.5
11	HONG KONG	0.1	0.0	5.2	9.1	0.4	1.3	3.2	1.5			8.9		7.5	9.4			2.9	
12	GERMANY	0.1	0.5	8.3	8.2	0.9	0.3	0.4	1.1	1.6	0.4	7.7	0.6	5.0	6.9	4.8	2.9	6.5	5.1
13	ISRAEL	0.0	0.6	6.6	6.1	10.0	1.1	0.2	6.3	0.1	0.1	4.9		8.1	6.5		4.2	10.0	3.6
14	NETHERLANDS	0.1	0.2	9.1	9.1	1.3	2.1	2.2	4.8	0.4	0.2	6.5	0.2	5.0	8.3	2.6	0.9	6.1	
15	JAPAN	0.0	0.2	9.1	9.4	0.2	0.0	0.0	0.0	2.7	0.5	6.1	0.1	5.3	6.6	0.9		5.9	5.5
16	IRELAND	0.0	0.1	9.1	8.8	1.8	1.2	0.9	5.9	0.1	0.1	7.5	0.0	4.1	7.7	7.3	4.3	5.0	
17	FRANCE	0.2	0.9	9.1	8.5	1.8	1.4	1.3	3.0	1.3	1.2	6.5	0.9	4.7	7.2	5.3	3.0	6.9	2.8
18	AUSTRIA	0.0	0.0	7.5	8.2	0.5	0.1	0.1	2.2	0.1	0.1	7.3	0.0	3.1	6.0	3.3	2.7	6.6	
19	NORWAY	0.0	0.1	6.8	8.5	2.5	0.1	0.0	4.1	0.2	0.0	8.2	0.0	7.2	7.6	2.7	1.5	6.3	
20	BELGIUM	0.0	0.2	9.1	8.2	2.3	0.7	0.5	7.0	0.2	0.2	5.5	0.2	5.0	6.8	2.4	1.4	6.2	
21	LUXEMBOURG			6.7	10.0							4.2	0.0	7.5			0.6	8.7	
22	ICELAND			3.8	7.0							7.4		3.8		4.1	4.7	7.9	
23	TAIWAN, CHINA	0.0	0.1	4.9	6.7	0.4	0.0	0.0	0.0	0.2		7.9		6.9	6.2				2.6
24	SOUTH KOREA			7.5	3.6				0.7	0.5	0.5	8.9	0.1	2.2	8.1	4.4	3.7	6.8	3.7
25	ESTONIA				6.7						0.0	7.6		5.0	7.0	4.5	2.8	4.0	

26	UAE			7.6						0.1		6.3		7.8	6.7			0.7		
27	MALAYSIA			3.7	7.3					2.2	0.1	7.5		9.1	7.3	3.3		2.1		
28	QATAR				8.8					0.0		3.5		10.0		0.0				
29	SPAIN	0.0	0.0	7.5	3.0					5.9	0.6	0.3	6.2	0.2	2.5	6.6	3.2	2.5	5.0	3.9
30	CZECH REPUBLIC			7.5	4.8					0.7	0.0	0.0	5.9	0.0	4.4	4.4	4.6	3.0	5.2	
31	PORTUGAL			7.7	5.2						0.1	0.0	7.0	0.0	2.8	6.9	3.0	4.6	4.5	
32	CHILE			7.3	3.6						0.1		5.1		4.4	5.8	1.9	0.3	0.7	7.4
33	LITHUANIA			6.0	3.3								7.4		3.4	4.8	3.1			3.4
34	SLOVAK REPUBLIC			7.0	3.3					0.0	0.0	6.4		3.1	4.1	4.8	4.5	3.0		
35	SOUTH AFRICA			7.2	7.3					4.4	0.1	0.0	3.1		3.4	5.3		0.9	0.9	
36	POLAND	0.0	0.0	7.0	3.0	0.1	0.2	0.3	4.1	0.1	0.0	6.7	0.0	1.9	2.8	5.2	3.7	2.3		
37	HUNGARY			8.3	2.1				3.0	0.0		5.5	0.0	1.6	4.6	2.0	0.9	4.1		
38	ITALY	0.0	0.1	9.1	3.3	0.1	0.0	0.0	1.5	0.8	0.1	5.3	0.0	0.6	4.9	2.0	2.8	4.8	3.2	
39	LATVIA				3.9							7.2		3.1	3.3	2.9	0.7	2.4		
40	SAUDI ARABIA			1.4	6.1				0.0	0.1		2.6		5.0	4.8	5.0	1.7			10.0
41	CHINA	0.1	0.1	6.4	3.0	0.0	0.0	0.1	0.4	2.7		2.5		5.9	5.0			1.9	0.7	
42	GREECE			7.4	3.3					0.1		4.2	0.0	0.0	4.2	3.5	0.6	4.9	1.9	
43	MEXICO			5.5	2.4				3.3	0.4	0.0	5.8		2.8	3.9	1.0	1.0	0.6	4.5	
44	RUSSIA			4.6	0.0				5.6	0.5	0.0	5.0		2.5	2.7	4.3	0.0	4.8	1.9	
45	THAILAND			0.0	0.6					0.1		5.1		4.4	6.1			0.5	8.7	
46	TURKEY			6.1	2.1				0.0	0.3		4.4		1.9	2.8	3.0	1.0	1.8	3.4	
47	BRAZIL			4.2	2.1				3.0	0.7		0.9		1.9	3.1	1.2	0.4	0.2	5.1	
48	PUERTO RICO											4.3				3.0		0.6		
49	INDIA	0.0	0.0	5.0	3.6	0.0	0.0	0.4	3.0	0.5		0.0		6.6	4.1			0.3	0.0	
50	PHILIPPINES			6.8	2.7					0.1		1.7		3.8	1.9			0.0	2.8	
51	KUWAIT				2.1					0.0		1.7		3.1	5.5			0.1		
52	INDONESIA			0.5	3.9					0.2		1.1		5.9	1.9	0.7			7.0	
53	UKRAINE			4.6	0.3					0.0		2.6		1.6	0.0	3.6		1.9	2.0	
54	ARGENTINA			5.9	0.0					0.1		0.6		0.3	0.2	1.5	0.4	1.6	3.2	

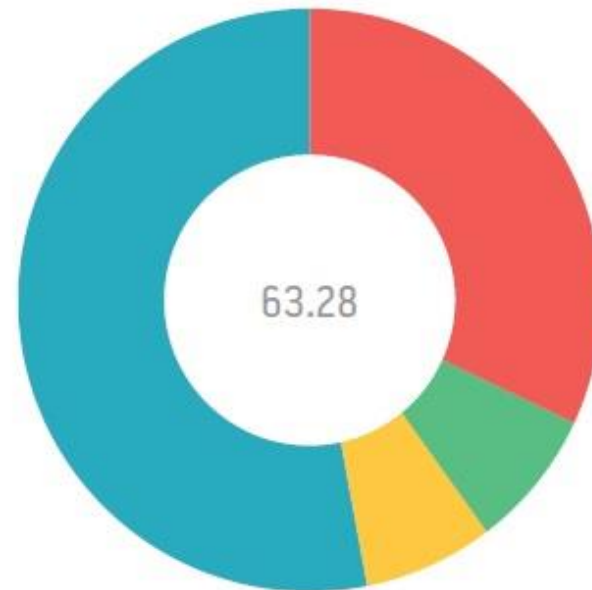
Turkey

SAVV SC rank: 46

Population: 81,619,392

GDP: 820

R&D/GDP: 0.92



Türkiye Dünyanın 18. Büyük Ekonomisi

Kaynak: Uluslararası
Para Fonu (IMF) 2016 Raporu

Country/Economy
United States
China
Japan
Germany
United Kingdom
France
India
Italy
Brazil
Canada
Korea
Russia
Australia
Spain
Mexico
Indonesia
Netherlands
Turkey

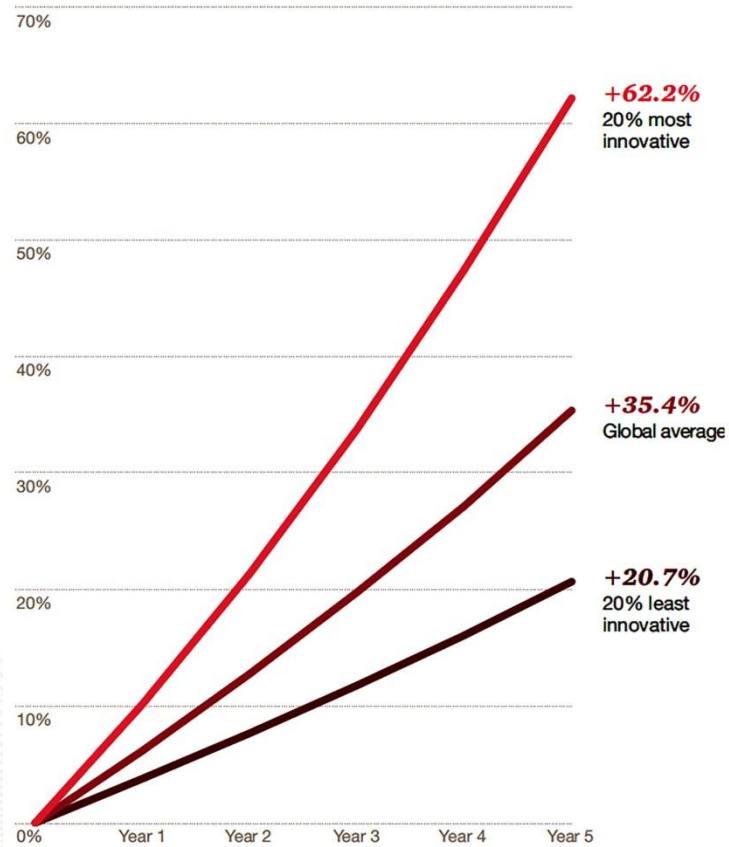
TÜRKİYE’NİN DESTEKLEDİĞİ STRATEJİK SEKTÖR

Öncelikli Dönüşüm Eylem Planı, Ulusal Biyoteknoloji Ar-Ge ve Yenilik Strateji Belgesi ve Eylem Planı (2015-2019), Ekonomi Bakanlığı ve TÜBİTAK Ar-Ge Teşvikleri, 1 Mart’ta yürürlüğe giren Ar-Ge Reform Paketi gibi sektörü hızlandırmaya yönelik plan ve projeler biyoteknoloji alanında faaliyet gösteren şirketlere ve çalışanlara avantaj sağlamaktadır.



TÜBİTAK’ın Vizyon 2023 Teknoloji Öngörü Çalışması Raporu’nda biyoteknoloji, en kritik beş faaliyet konusu arasında belirtilmiştir.

BÜYÜME TRENDİ



Başaracağız!



Dr. Ercan VARLIBAŞ

Facebook: /drercanvarlibas

E- Posta: evarlibas@vsybiotechnology.com

Teşekkür ederim.

