



BIOTECHNOLOGY IN HUNGARY AND THE REGION

November 12, 2010

SLING project

HUNGARIAN
BIOTECHNOLOGY[®]
ASSOCIATION

Erno Duda
President

A pharmaceutical industry with local roots

Int'l R&D and manufacturing sites of seven big pharma companies in the Budapest and Debrecen regions

Founded as

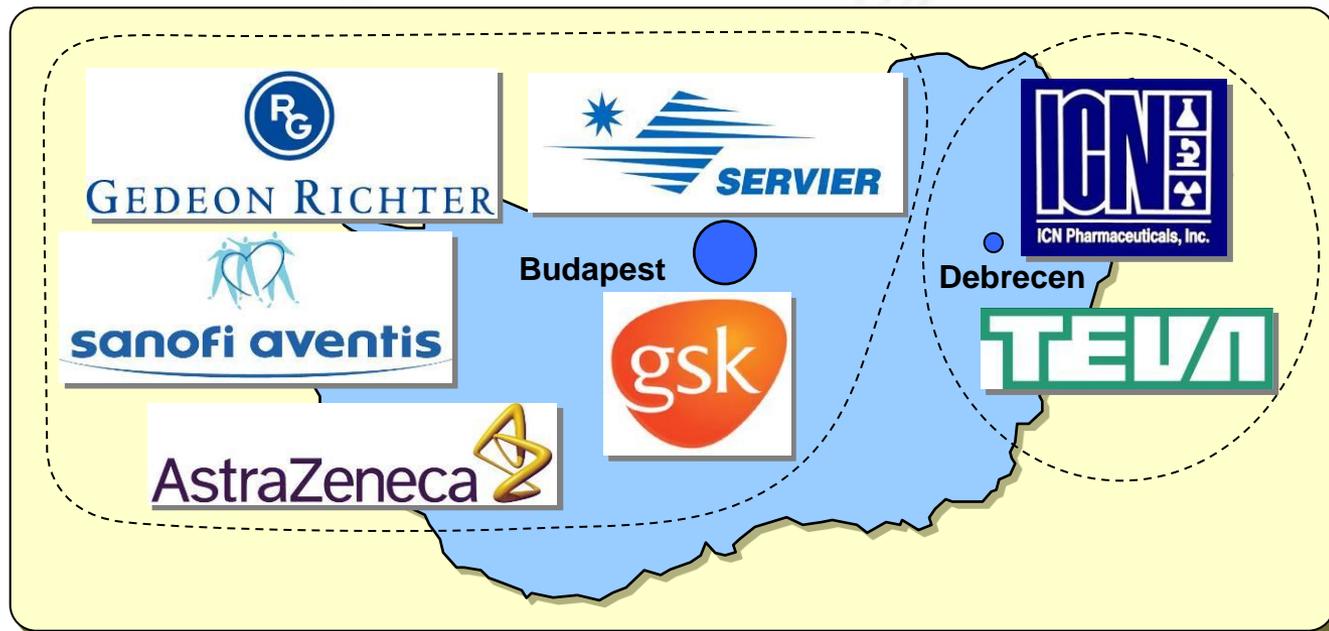
1901 *Gedeon Richter*
1910 Alka
1912 Rex
1912 Phylaxia
1913 Dr. Wander
1927 Alkaloida
1950 Drug Res. Inst.

Renamed in the 40's

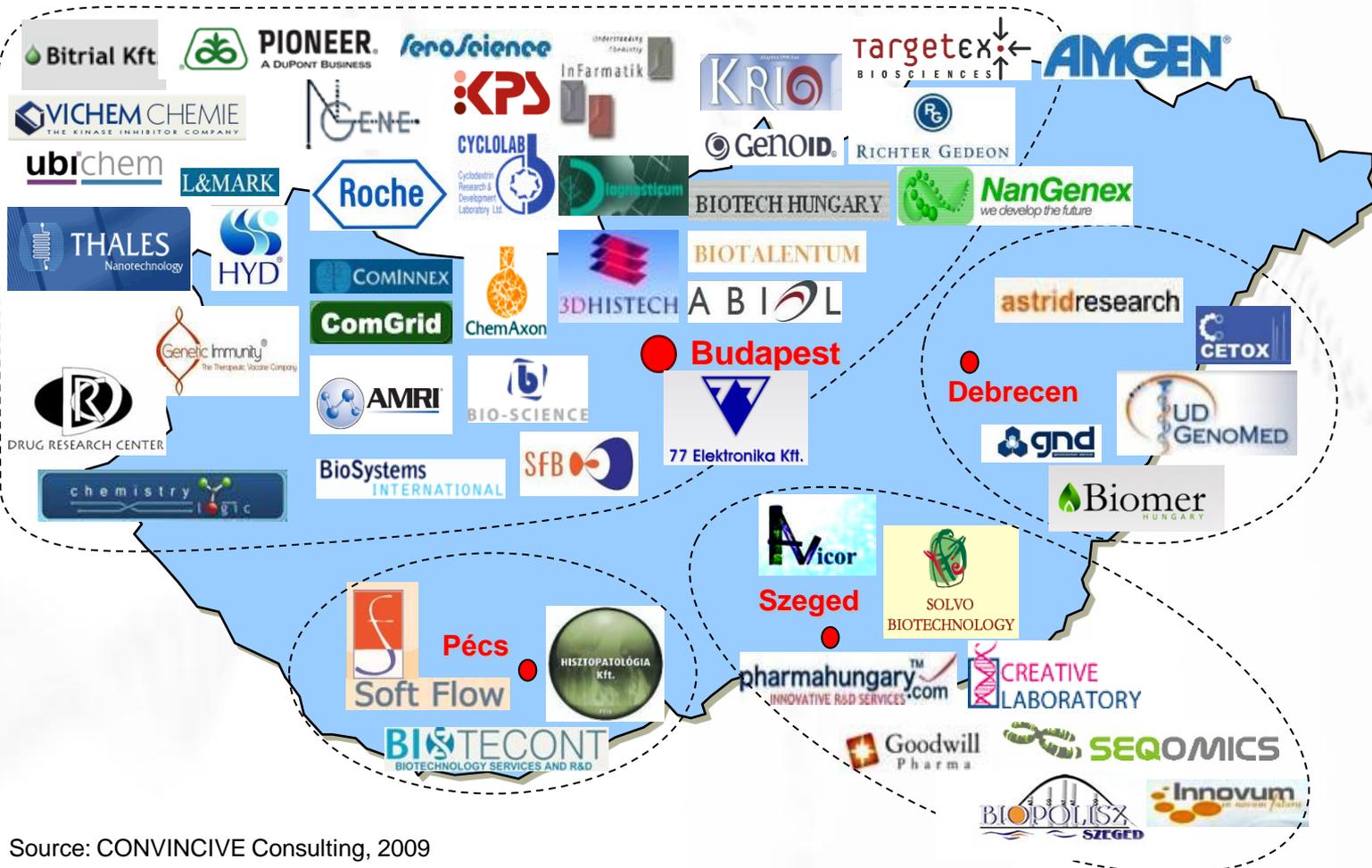
-
Chinoin
Biogal
Human-Phylaxia
Egis
-
-

Now owned by

Independent
Sanofi-Aventis
TEVA
GSK
Servier
ICN
TEVA



HBA has over 100 member companies:
of which 55 are core biotech companies in four academic towns

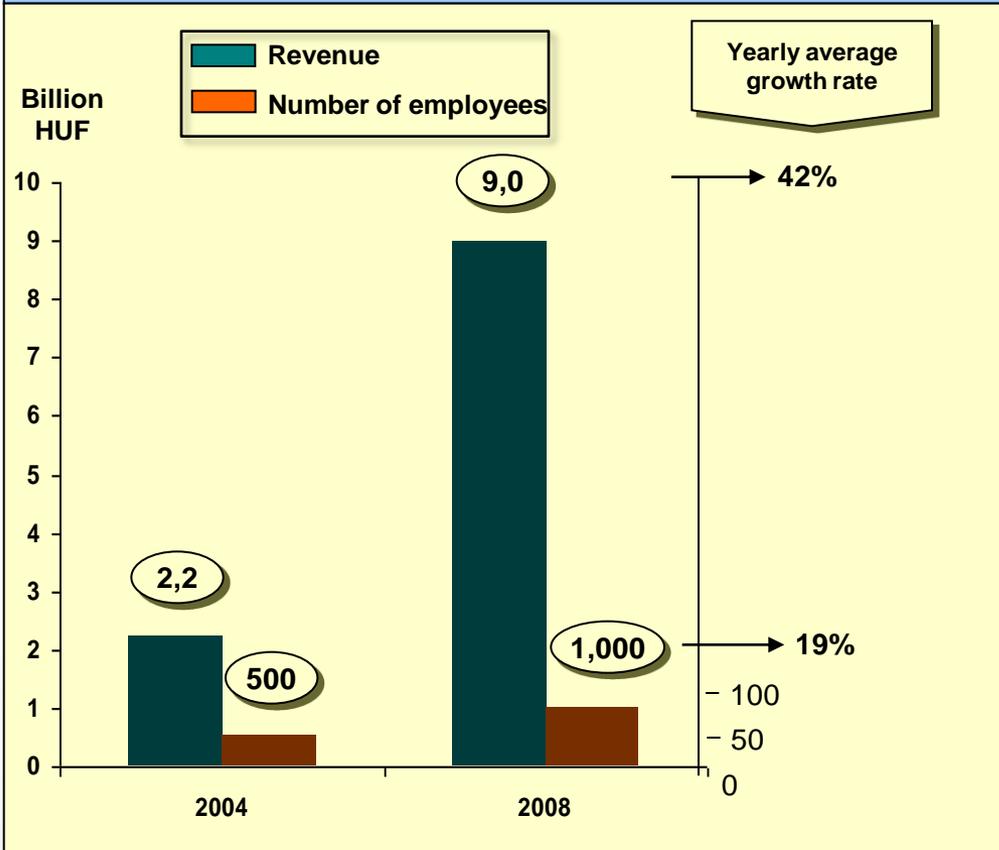


Strong Areas On Int'l Level

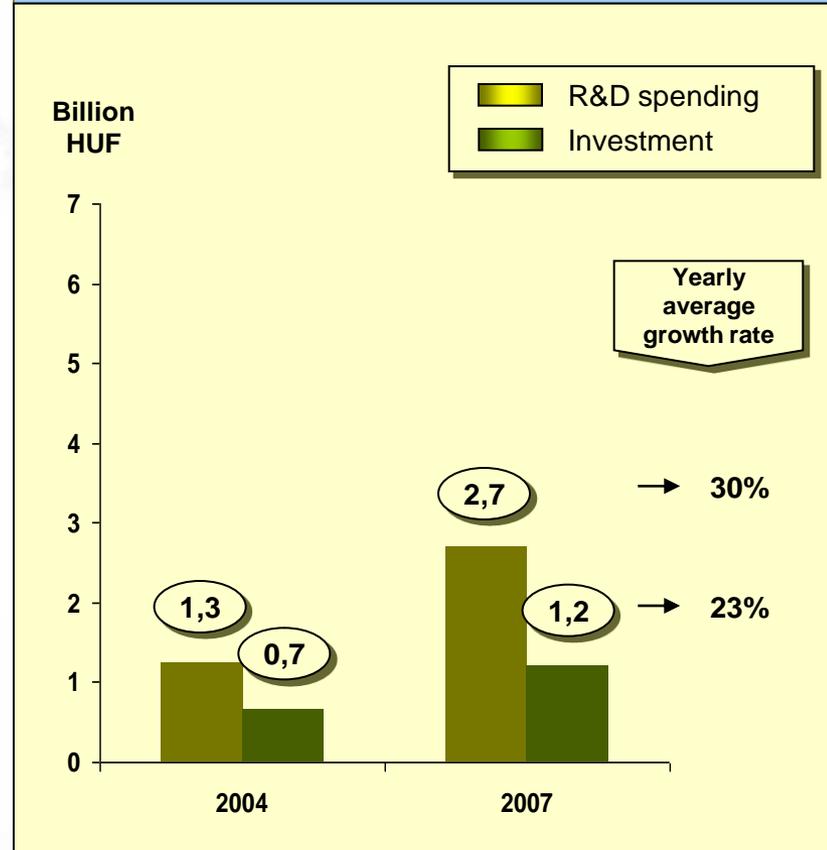
- Biopharma
- Drug R&D technologies and services, incl. clinical trials
- Molecular diagnostics
- ADME
- Vaccines

Source: CONVINCIVE Consulting, 2009

Accumulated ratios of Hungarian Red biotech and Bioinformatics sectors (2004-2008) ⁽¹⁾



Total R&D spending and investment volume of Hungarian biotech sector (2004-2007) ⁽²⁾



¹ Source: HBA and CONVINCIVE Consulting, december 2009

² Source: HBA and CONVINCIVE Consulting, november 2008



Total	Red biotech	Bio-informatics	Green biotech	White biotech	
~250	150	25	50	30	Identified related research facilities
~110	37	16	27	31	Identified biotech companies
~1500	7-800	250	2-300	n.a.	Company employees*
~15	6-7	2,5	3-4	n.a.	Billion Ft company revenues

*Data is based on currently ongoing statistical data gathering. Data from Richter Plc. is not included in this table.

	2004	2007	CAGR
Core biotech firms	30	55	22%
Biotech firms in a broader sense	~ 100	~ 150	15%
Core biotech incomes (EUR mn)	8	26	44%
Core biotech R&D expenses (EUR mn)	6	12	30%
Core biotech employees	~ 500	~ 900	22%
Core biotech R&D employees	~ 230	~ 450	25%

Age

- 1/3 founded between 2005 and 2008
- Many pre-competitive micro-ventures with less than 10 employees
- Many still owned by the founders

Business model

- Approx. 75% sells technologies or services to global pharma
- Only approx. 25% develops biotherapies
- Typically targeting global niche markets, where they are market leaders with a handful of employees
- Strong global ties

Concentration

- 1st 10 companies account for 82% of revenues
- 1st 20 companies account for 97% of revenues

Source: HBA and CONVINCIVE Consulting, 2009

- Majority of Hungarian biotech companies serve world-wide markets
- Some of them are clear world-wide market leaders in their segments
- Most successful healthcare biotech business models in Hungary (with some examples):

- Biopharma



- Drug R&D technologies and services, incl. clinical trials, ADME



- Nanotechnology



- Molecular diagnostics



- Vaccines and nanomedicines



Source: CONVINCIVE Consulting, 2009



Hungary Bids for Prime Spot in EU Biotech

May 1 2010 (Vol. 30, No. 9)

“Hungary is the most developed biotech country of all those we studied,” adds Ludovic Lacaine, healthcare council director of EuropaBio. “International companies have a strong presence here. There is also a very positive view of biotech in political circles. It is seen as a priority and this has been translated into legal and tax incentives for biotech innovation.”



Hungary to Expand Clinical Trial Offering

Mar 24, 2010

„Hungary is seeking to become a gateway for European clinical trials, according to a report from IMS's [Biopharmatiques](#). The country is currently third in the Central and Eastern European (CEE) states with regard to the numbers of clinical trials conducted...”



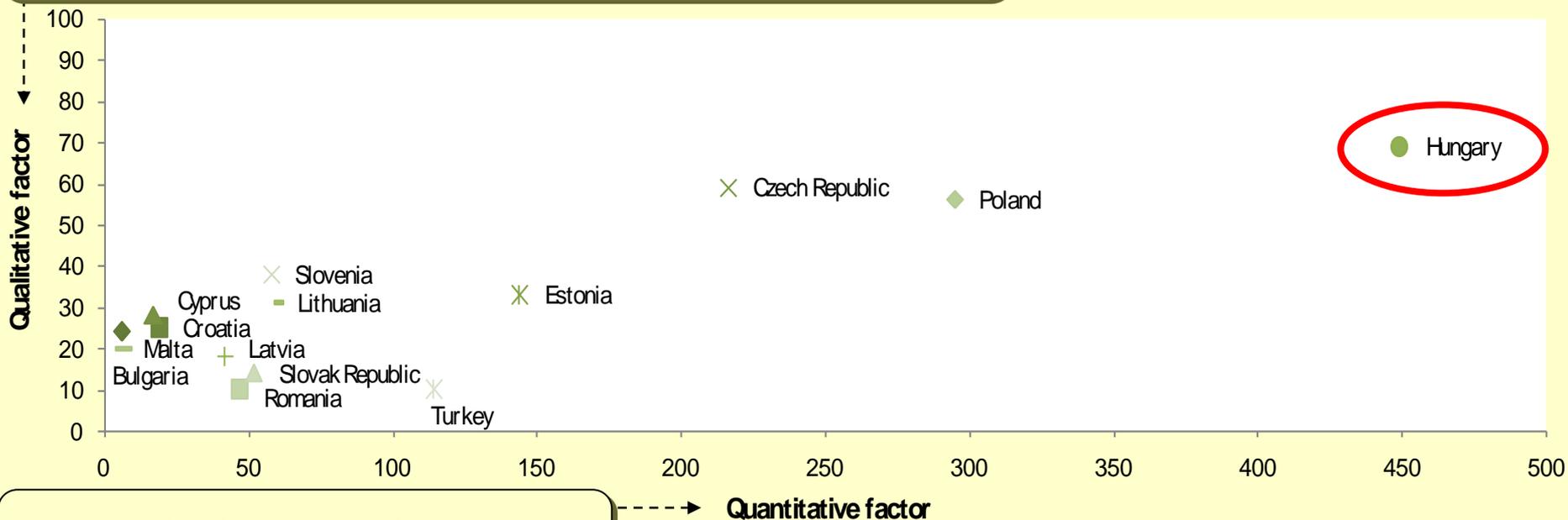
Why Biotech Blooms in Central Europe

Mach, 2010

„Today, Hungary’s biotech sector is small by U.S. and Western European standards, but it is growing, and is the pacesetter among the 12 new EU member countries and two candidate nations...”

Quantitative and Qualitative Factors in the 14 New EU Member States and Candidate Countries (2009)

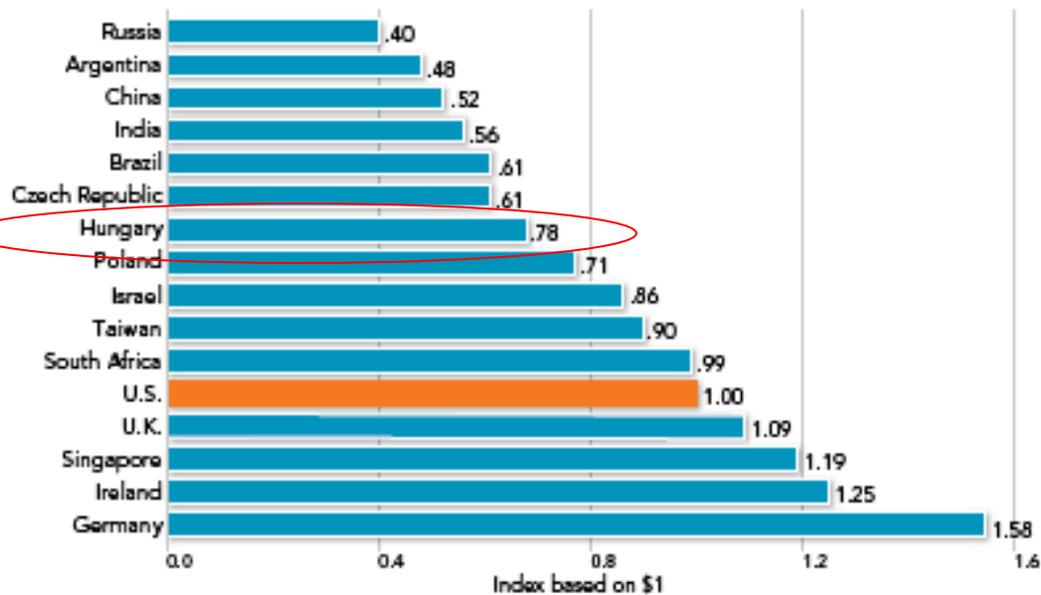
Environment for future growth: government support, qualified workforce, technology transfer systems, IP protection, technology parks and clusters, public and private financial support, presence of a pharmaceutical industry



Presence of a biotechnology industry: number of companies, employees and products

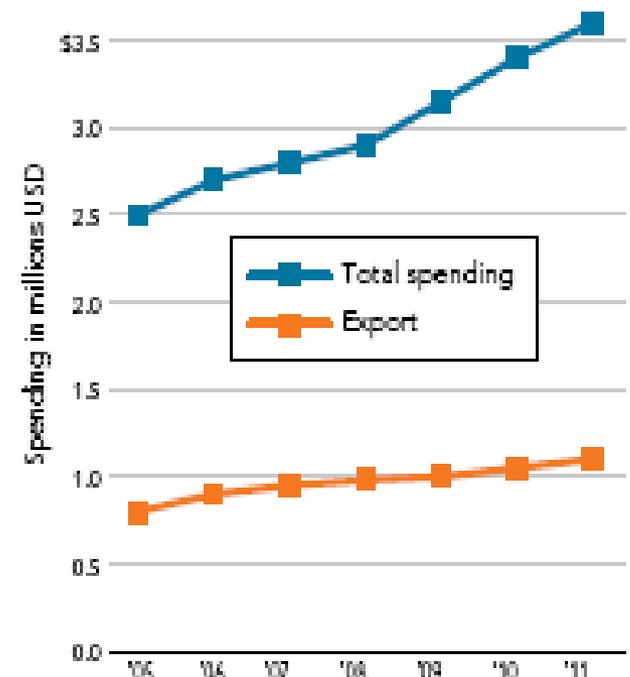
„Hungary has a proven track record and global reputation for attracting and conducting international clinical trials, with over 300 clinical trials performed each year.”³

Figure 6.1 Indexed Clinical Trial Costs



Source: SalaryExpert.com; WDI Database; Economist Intelligence Unit; CBRE Global Markets Rent 2005; A.T. Kearney; Clinical Trial Offshoring

Figure 6.26 Hungarian Pharmaceutical Market Forecast



Source: Hungarian Investment and Trade Development Agency

³ Source: Biotech 2010 Life Sciences: Adapting for Success, Burill&Company

- ✓ 1. Strong **pharmaceutical sector** drives biotech
- ✓ 2. A critical mass of **biotech companies**
- ✓ 3. Solid **research and human resource** base
- ✓ 4. Emerging sources of **capital financing**
- ✓ 5. Active **governmental support**

"It is worth investing in Hungary since, in the very recent years, Hungarian researchers have discovered two original molecules, which are in development phase now."

Jean-François Dehecq –
worldwide CEO Sanofi-Aventis

Sanofi-Aventis Hungary employs 2,500 people in Hungary and has **invested more than EUR 500 million** in its Hungarian subsidiary since 1991.

Source: CONVINCIVE Consulting (2005), www.sanofi-aventis.hu

Vision

„By 2030, the Hungarian biotech sector becomes globally recognized as one of the outstanding European bioregions.”

Goals

Development of a self-sustaining biotech sector with critical mass of R&D and HR resources and capital funding. Establishment of a number of strong and profitable biotechnology firms. Contribution to the health and well-being of people in Hungary, Europe and globally.

Specific goals

Number of biotech companies and employees grow 5-fold with 10% CAGR

- Approx. 250 core biotech firms:
- Approx. 2 500 core biotech employees

Biotech company revenues grow 15-fold with 15% CAGR

- Approx. € 400 mn

Five critical challenges and action areas

ACTION 1: Focused development of biotech related basic and applied research

ACTION 2: Development of technology transfer to enable the commercialization of scientific results

ACTION 3: Development, attracting and retention of scientific and management talent

ACTION 4: Securing financing for biotech ventures

ACTION 5: Establishment of biotech friendly policy and market conditions

Thank you for your attention!

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