



SCREENING CHAPTER 20 ENTERPRISE AND INDUSTRIAL POLICY

AGENDA ITEM X : BIOTECHNOLOGY

**Country Session: The Republic of TURKEY
4-5 May 2006**



CONTENT

- **Overview**
- **Institutions Involved**
- **Policy Documents**
- **Consultation Mechanisms**
- **Research and Development Activities**
- **Future Plans**



Overview

Sector Profile

Related Sector	# of Domestic Firms (2006)	Total Market Size (Yearly estimate)
Environmental	6	105 million € (2006)
Energy	8	-
Food	9	500 million € (2006)
Pharmaceuticals	6	225-580 million € (2010)
Chemicals	8	25 million € (2006)
Agriculture	9	3,5-7 billion € (2010)
Health	47	85 million €(2006)
Total	93	

Source: TUSIAD and Sabanci University- Draft Report on Biotechnology Collaborations in Turkey, 2006



Overview (CONT'D)

Sector Profile – International Comparison

Country	# of Firms
Total # of companies (Global)	4,416
Total # of companies (Europe)	1,815
Germany	346
United Kingdom	311
France	228
Sweden	178
Switzerland	131
Turkey*	93
Netherlands	85
Denmark	80
Finland	69

Sources: Ernst & Young – Global Changes, Global Solutions, Beyond Borders Global Biotechnology Report-2005, (Data 2004)

*TUSIAD and Sabanci University- Draft Report on Biotechnology Collaborations in Turkey, 2006



Institutions Involved

Institutions	Role and Responsibility
Ministry of Health	Policy- making, Regulatory
Ministry of Agriculture and Rural Affairs	Policy- making, Regulatory
Ministry of Industry and Trade	Policy –making, Regulatory
Ministry of Environment and Forestry	Policy-making, Regulatory
State Planning Organisation	Policy-making, Planning, Project Support
Supreme Council of Science and Technology	Research Policy Making
TUBITAK	Research Policy Making, Project Support
Turkish Academy of Sciences	Scientific Policy Making



Institutions Involved (CONT'D)

Other Important Actors	Role and Responsibility
Turkish Technology Development Foundation	Project support, Finance
KOSGEB	Project Support, Incubator Services
Undersecretariat for Foreign Trade	Regulatory, Provide Financial Resources
TUSIAD and other business organisations	Policy-advice, Sectoral Research



Policy Documents

Policy Document	Date	Coordinator Institution	Legal status
8 th Five Year Development Plan	2001-2005	SPO	Approved by TGNA
SCST Decisions	Twice Yearly	TUBITAK	Circular of Prime Ministry
National Science and Technology Strategy	2005-2010	TUBITAK	Circular of Prime Ministry



Policy Documents (CONT'D)

Biotechnology is defined as one of the priority research areas in 8th Five Year Development Plan (2001-2005), SCST Decisions (2004) and National Science and Technology Strategy (2005-2010).



Consultation Mechanisms

- Ad-Hoc Committees of the Development Plans
- Foresight Studies
 - ✓ Vision 2023 (2003-2005)
 - ✓ Molecular Life Sciences and Technologies (TUBA, 2005)
- Biotechnology Platform



Support Mechanisms for R&D Activities

Supports for Research Projects of Companies

- TUBITAK: 3% of total cost of projects between 1995-2005 (1,303 projects of 180 million €)
- TTGV: 7.2% of total cost of projects between 1991-2005 (240 projects of 95 million €)
- Technoparks: 31 companies out of 463 is on biotechnology (6.7%).
Also Ankara University will establish a biotechnology-based technopark in 2006.
- KOSGEB's Technology Development Centres: 35 projects out of 912 projects are carried on biotechnology (3.84%).
- USAMP: In Hacettepe University there is a specialised USAMP on biomedical technology and biotechnology



Support Mechanisms for R&D Activities (CONT'D)

Supports for Developing R&D in Universities and Public Research Institutions

- State Planning Organisation provides support for R&D projects, research infrastructures, excellency centers and researcher development programmes.
 - ✓ Ankara University Biotechnology Institute
- TUBITAK supports R&D Projects and new researchers

Total Research Capacity of Universities and Research Institutions

- 137 research units on molecular life sciences and biotechnology with 1,970 researchers.
- Citation per researchers is 0.66 yearly and total number of patents are 17 between 1998-2000.

(Source: TUBA- Molecular Life Sciences and Technologies, 2005)



Future Plans

- New company development is very important in this sector. So entrepreneurship and SME support mechanisms will focus on biotechnology.
 - ✓ A biotechnology incubator project will be submitted to the EU Financial Cooperation Programme in 2006.



Thank you for your attention