



SCREENING CHAPTER 25 SCIENCE AND RESEARCH

AGENDA ITEM 4: SPECIFIC RESEARCH ACTIONS - MOBILITY

**Country Session: The Republic of TURKEY
14 November 2005**



ASSESSMENT OF MOBILITY ACTIVITIES IN TURKEY



Major Mobility Activities in Turkey

- **Legal Framework**
- **Internal Mobility Activities**
 - Scientific Human Resource Development Programmes
 - Faculty Development Programme
 - Post-Doctoral Programme
 - Integrated National and International Projects
 - University-Industry Mobility
- **International Mobility Activities:**
 - Visiting Faculty Members
 - Sabbatical leaves
 - Grants and Scholarships
 - European Research Area (ERA)
 - Eurasian Research Area (EaRA)



Legal Framework for Mobility

Since 1983, Higher Education Law (Number 2547) has been regulating the legal framework of mobility. However, mobility programmes in Turkey date back to 1926.

Present Framework (Law Number 2547)

ARTICLE 34: Foreign National Teaching Staff Members

Teaching staff of foreign nationality, who are to be employed on a temporary basis at higher education institutions, are appointed by the Rector. The provisions as set down in this law regarding teaching duties for the permanent teaching staff also apply for these foreign appointees.



Legal Framework for Mobility

Present Framework (Law Number 2547)

ARTICLE 35: *Training of Teaching Faculty Members*

To meet their own needs and those of other higher education institutions, higher education institutions are responsible for the training of their faculty members, at home or abroad, and in accordance with the principles and objectives of development plans. Those who obtain their doctorate, specialization in medicine, or proficiency in the arts in this manner are to return to their own universities upon the completion of their studies.

ARTICLE 39: *Assignment at Home and Abroad*

Upon the proposal of the Council of Higher Education, the Council of Ministers shall determine quotas and time periods each year with regard to the universities, concerning those to be sent abroad for a maximum of one year. Similarly, teaching faculty members receiving grants from foreign sources may also be sent abroad.



Current Situation

- There is an increasing demand for PhD graduates in industry (especially in technoparks).
- There is an increasing demand for higher education (annually about 200,000 students are able to enter to 4-year programmes of universities out of 1,8 million).
- Turkish Higher Education System faces a deficit of young scientists



Internal Mobility Activities

Scientific Human Resource Development Programmes

Initiated by Higher Education Council, Universities and TUBITAK

Objective:

to contribute to the development of scientific human resources in the emerging fields of science and technology by supporting the mobility of researchers

Tools:

- provide opportunities for graduate students to study abroad,
- improve the quality of graduate programmes in Turkey to attract more students,
- encourage Turkish Universities to establish sustainable multinational networks.



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Turkish Graduate Students Studying Abroad
Distribution of PhD Students (by country)

Years	1987	88	89	90	91	92	93	94	95	96	97	98	99	00	01	02	03	TOTAL
USA	67	138	55	66	67	60	745	64	169	85	40	56	50	47	32	53	41	1835
UNITED KINGDOM	38	208	112	127	110	74	446	52	93	57	17	21	8	9	10	11	8	1401
GERMANY	7	17	4	13	13	13	44	2	11	5	5	1	7	2			1	145
FRANCE	5	12	7	4	8	3	13	5	9	2	3	9	8	2	1	4	9	104
CANADA	24	17	3	3		2	6	1		4	1	3	3	1	3	1	1	73
AUSTRIA	2	2	1	3	3	2	3		1	1	1	1	1			1		22
AUSTRALIA						1	14	1		1	1							18
SWITZERLAND	6	1	2	3	1	1	2								2			18
NETHERLAND		1		2	1		3	1	1	1			1	1	1	2	1	16
JAPAN				2	1		1	3	1		1	1						10
RUSSIA					3		2			2				1	1		1	10
OTHERS (18 Countries)	0	3	3	3	1	3	3	2	0	4	7	5	2	0	3	1	2	42
TOTAL	149	389	187	226	208	159	1282	131	285	162	76	97	80	63	53	73	64	3694



Remarks

- 3,694 research assistants were sent to 29 different countries for graduate study by CoHE.
- About 50% of these research assistants went to the USA, 38% to the UK and the remaining 12% to 27 different countries.
- As of November 2004, 20% of the research assistants were studying abroad. 57% of them completed their PhD's and returned to Turkey.



Improve the quality of graduate programmes in Turkey to attract more students

- From 1993 to 2003, the number of students that completed PhD studies in Turkish universities increased from 1468 to 2815 (Medical Specialization Degrees excluded).
- State Planning Organisation provided financial support to improve the infrastructure for graduate programmes.
- The content of Graduate Studies Exam was changed from a knowledge based format to an aptitude test (LES).
- Minimum requirements were set for foreign language proficiency.
- Numbers of interdisciplinary programmes has increased.



Improvements in the quality of graduate programmes

Support mechanisms has been introduced for the mobility of PhD students, during their theses work.

The number of double and Joint PhD Degree programmes has increased.

Industry based post-graduate studies has increased with the establishment of technoparks.



Establishment of Sustainable Networks

- Between 2001 and 2005, number of networks raised from 1 to 4; accordingly, the number of universities within these networks increased from 5 to 35 (FDP, ADIM, etc.)
- These networks provide opportunity for researchers to complete their graduate studies at other universities.



Faculty (Human Resource) Development Programme (FDP)

FDP is a network of universities built on the joint action and collaboration of 21 Turkish Universities. This programme was launched in Spring 2002.

The research assistants of partner universities are expected to enroll and complete their PhD studies at the Host University.

Objective:

- is to respond to the pronounced need for new faculty members in the recently established Turkish Universities. Junior staff from 21 Turkish Universities are admitted to the PhD programmes of the host universities. The financial support for these studies is provided from the central budget.

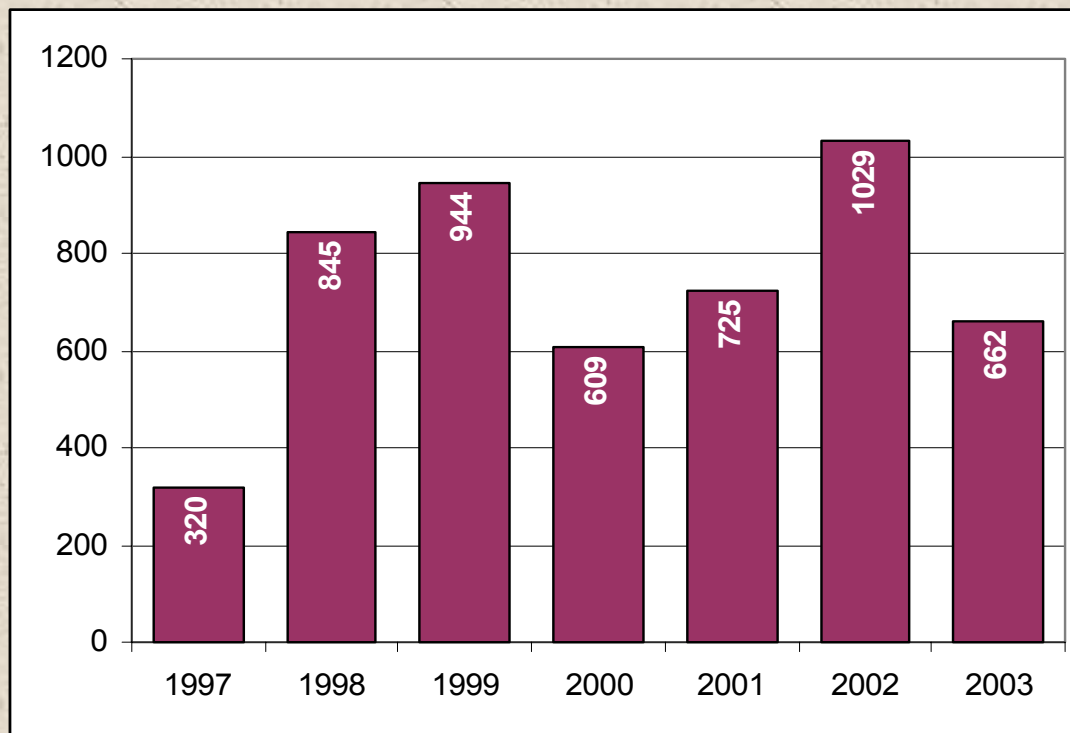


Current Situation in FDP: 39 Graduates and 550 Researchers





Research Assistants Cadre For Faculty Development Programme – Article 35





Post-Doctoral Programme (PDP) (Pilot Project)

- PDP is a programme in which young academicians with PhD degrees are allowed to take paid leave from their universities to carry out research at another university for a period of 12-18 months.
- The programme works in the universities which established inter-university network. Currently, there are 24 academicians in the programme.
- Visiting researchers are provided with the same benefits as academic staff of the Host University (faculty housing, health services, etc.).

Objective:

- to develop scientific and academic skills of young researchers and to enhance the collaboration between universities.



Post-doc Programme

27 Universities, 71 Applicants, 24 Acceptance (Pilot Project)





Integrated National and International Projects (INIP)

- Involves value added, competitive and product oriented research projects.
- Financed from the central budget
- Participation of researchers from industry/SMEs and other universities is required.

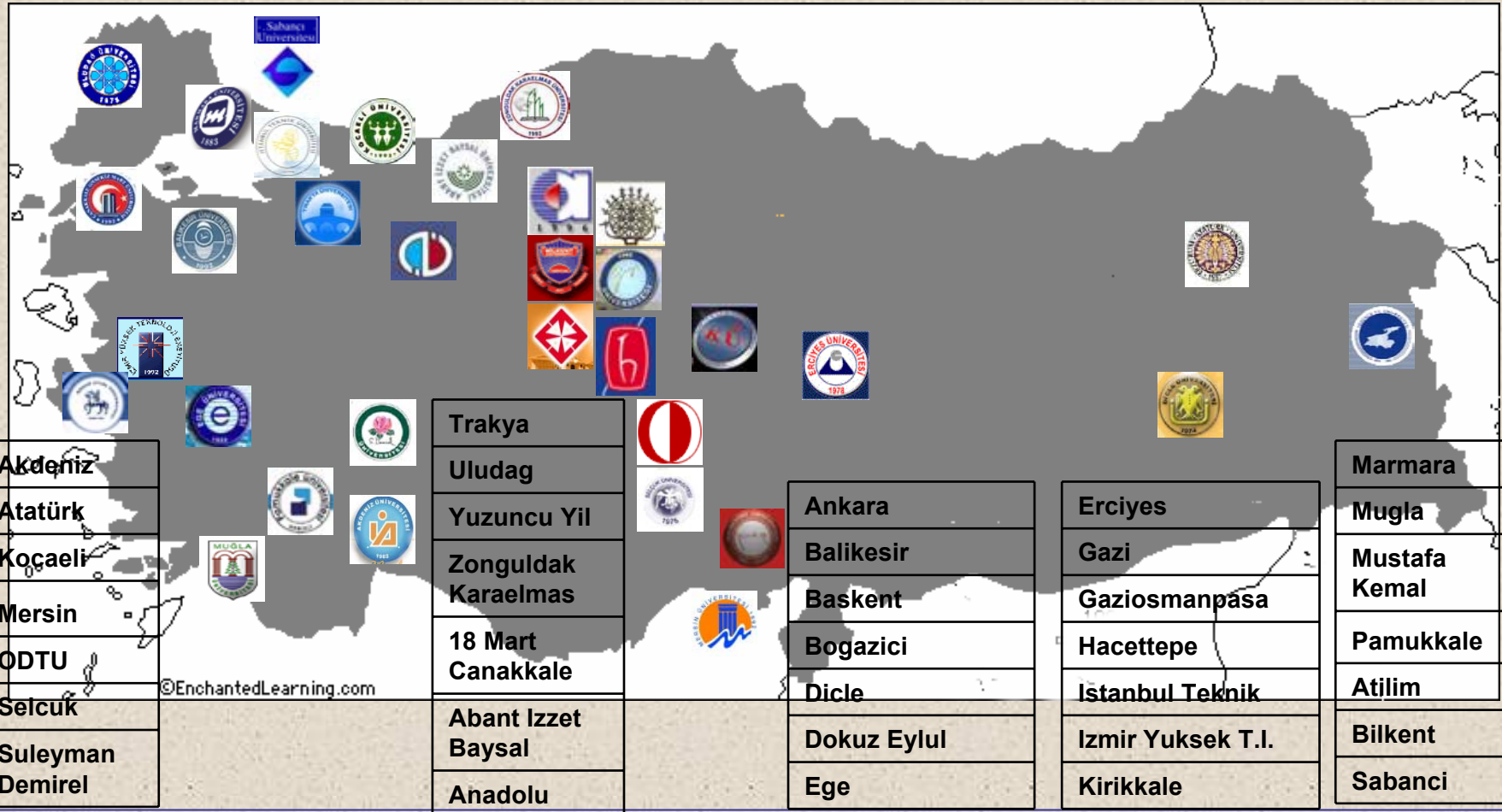
Objective:

- To enhance collaborative research by drawing the strengths and capabilities of the partners to focus on regional objectives and to take part in international partnerships



INIP (2003)

14 areas, 58 workshops, 35 Universities, 84 institutions, 512 researchers, 21 projects



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University-Industry Mobility

- Since 2001, university researchers can spend their sabbatical leave at companies in Technology Development Zones (Technoparks).
- Joint Research Projects are conducted by university and technoparks.
- Contract research and consultancy activities are carried out in industry.
- People working in industry have an increased interest to conduct post-graduate studies in universities.



International Mobility Activities

•Visiting Faculty Members

Article 34 of Higher Education Law sets the provision to invite international visiting faculty/researchers. However, there are certain constraints and obstacles limiting the mobility.

Objective:

- To meet the demand for international experts in the emerging fields,
- To promote the dissemination of knowledge and create synergy.



Sabbatical Leave

Sabbatical leave abroad

- Article 39 of Higher Education Law allows academic staff to spend one year abroad on leave with payment from their university after the completion of 6 years of service.
- After the completion of sabbatical leave, an additional year of absence without pay can be taken.



Grants and Scholarships

• Since the establishment of the Republic of Turkey, researchers have been granted with scholarships to participate in research activities abroad.

• Major funding organisations:

- Ministries
- Higher Education Council
- TUBITAK
- Foundations and NGOs
- International Organisations

Objective:

- To provide further education for young academicians/researchers at the universities,
- To help development of human resources for industry and public sector.



European Research Area (ERA)

Starting from MEDCAMPUS projects (1990's) mobility and interaction between Turkish and European researchers have tremendously increased.

Turkey participates in various mobility programmes of the EU.

Current Situation (2004):

- Project Proposals: 92
- Supported projects: 11
- Success rate of projects: 12%



Eurasian Research Area (EaRA)

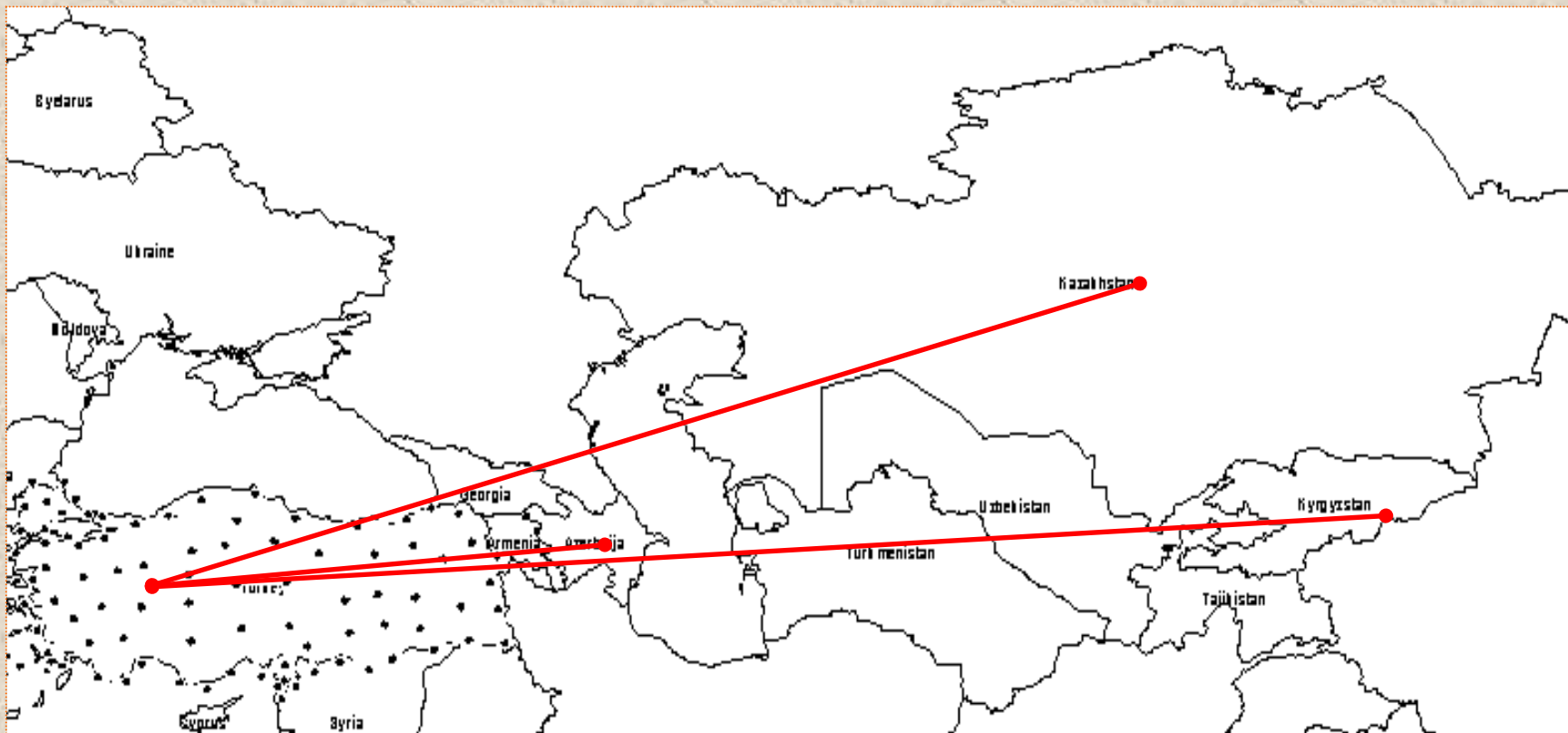
Inspired by the ERA, 14 universities from 6 countries agreed upon a protocol to institutionalize the Eurasian Research Area in September 2003.

Turkey can play a bridging role between ERA and EaRA.

Objective:

- to integrate the individual research efforts in the region in order to create synergy (Integrated Eurasian Projects)
- to contribute to the Human Resource Development of the universities in the region (Eurasian Faculty Development Programme).

Current Situation in Eurasian FDP PhD Students at METU (Pilot Project) *18 Kyrgyz, 12 Kazakh, 2 Azeri*





CONCLUDING REMARKS

- **Mobility of researchers has long been recognized as an important aspect of scientific progress and internationalization.**
- **Legal infrastructure for mobility existed for years however there is a need for further improvement.**
- **Researchers both universities and other establishments need to spend part of their professional lives at international environments. Therefore governments and institutions should take necessary actions for the increased mobility of researchers.**