

Snapshots 'Brain drain study'

2. The Brain Drain to the US: Challenges and Answers

- In 2001, more than 26,000 of the H-1B beneficiaries¹ were from the EU-15 and more than 7,300 from the Acceding countries (of a grand total of more than 33,000). Most of the Europeans were in computer and related occupations with the second largest share in engineering and the third in management (fig1-3c). These figures should be considered with the fact that temporary visas can of course lead to permanent residence and permanent loss to the supplying country. A recent US study (Lowell) provides a rough estimate of as high as one third might go on to make the transition to permanent residency might be considered — if we drop this to 25% even, in 2001 the EU-15 may have lost some 5,000 highly skilled high in demand workers.
- And not only experienced European researchers are leaving. The incidence of Europeans who earn their doctorate in the US and choose to stay abroad is high. Among the more than 15,000 EU-born US doctorate recipients who graduated between 1991 and 2000, some 11,000 reported plans to remain in the US; the tendency to have plans to stay in the US appears to be on the rise. Among the US doctorate recipients from Eastern and Central Europe, as many as seven in ten told of plans to stay in the US.
- Between 1991 and 2000, almost 5,000 of the EU-15 US doctorate recipients reported a firm employment offer in the US and among them, 35% were in R&D employment and 40% in teaching. For the CEEC contingent with a firm employment offer, 52% were in R&D and 27% in teaching.

Some initiatives

In most of the European countries the necessity to take action against ongoing and increasing brain drain has been acknowledged. A number of European countries have taken a proactive role, from enacting legislation to facilitate foreign researcher entry to streamlining administrative burdens for intra-company transfers. For example,

- The UK has a long and profitable experience with migration flows; it has net inflow from Europe and is bringing skilled workers in to meet its demand. In the late 1990s, the UK permit system responded successfully to bring in health and medical services workers and the UK continues to be active in encouraging 'brain worker' exchange as barriers for foreign HRST continue to fall and UK researchers continue to venture out, with a net gain for the UK.
- The Irish government has initiated fast tracking of skilled workers in designated sectors (e.g. IT and biotech); it reduced the administrative burden of intra-company transfers. It also has an initiative to attract Irish researchers home for tenure positions.
- Since the 1990s, Portugal has had a policy of advancing training of human resources and supports granting of scholarships to support postdoctoral research by foreigners in Portugal.
- Germany has introduced 'green' cards to foster the recruitment of IT specialists.

¹ The H-1B is the visa for entry of workers in specialty occupations and people are admitted based on professional education and skills (e.g. IT specialist).

- Between 1991 and 2000, Hungary had eased the entry of higher educated foreign citizens by exempting them from regular work permission procedures (this ended in Jan 2000).

Also at the European level several actions have been taken. The European Commission promotes and finances some initiatives, or tries to streamline legislations in order to improve the researchers' environment and to make the European Research Area more attractive for scientists in and outside the Union. For example:

- Some schemes under the 'Marie Curie Actions' of the EC aim at attracting world-class European researchers and encouraging them to resume their careers in Europe, or give support for the reintegration of researchers into scientific careers in Europe after their Marie Curie mobility period. The 'Marie Curie Research Training Networks' provide the means for promoting the training of researchers within the frame of international collaborative research projects.
- The European Commission started in July 2003 a web-based 'European Portal' providing (both European and non-European) researchers and scientists with detailed and exhaustive information on career opportunities in European research. This portal will be soon complemented (from March 2004 on) by the launch of an international European network of more than 400 'mobility centres' to provide foreign researchers with practical assistance on professional and private matters in the host country.
- The European Commission is currently preparing a guideline project to simplify the entry and mobility conditions for non-European researchers to and within the European Research Area. Namely the guideline foresees the implementation of a European 'scientific visa' for non-European researchers. The 'scientific visa' would be recognised in all countries of the ERA and would therefore substantially facilitate researchers' mobility - and transfer of knowledge- within Europe.

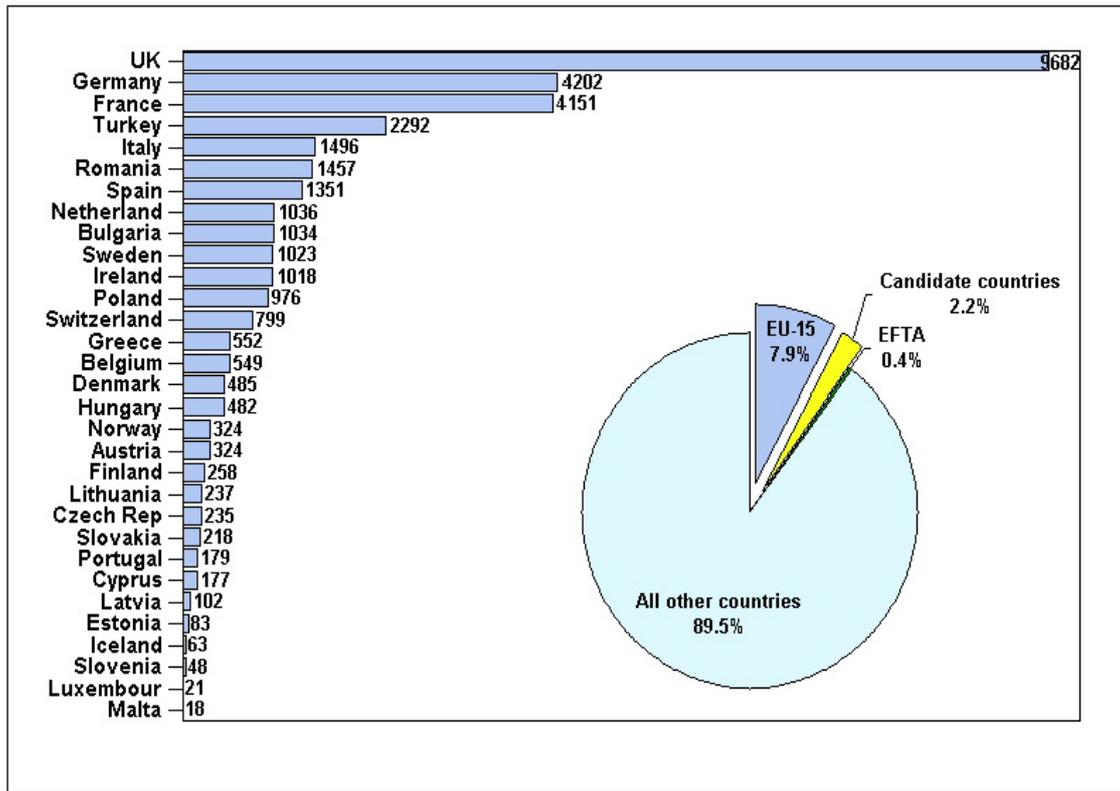
But still structural impediments

At the same time, countries still have restrictions and challenges. For example,

- The Netherlands and Belgium continue with restrictive employment policy, although there are special considerations for highly skilled workers that are in demand such as R&D and IT. In 2001 still fewer than 3% of IT professionals in the Netherlands held foreign citizenship and in Belgium the figure was 6%.
- France seems unable to attract highly skilled persons anywhere the near the success of countries like the UK or the US and a recent a study carried out for the French Senate tells of a "discouraging landscape of administrative convolusion, heavy taxes and inflexible labour legislation." Representation of foreigners in high skill occupations in IT, teaching and health are some of the lowest across Europe.
- One might observe that Europe has yet to successfully market the ERA as a challenging venue to attract highly skilled S&E persons from outside of its borders; the presence of foreign teachers is almost non-existent (e.g. Italy with less than half of one percent and Netherlands with less than 2%).
- Yet some countries like Italy and Spain are producing highly skilled personnel that leave to pursue research abroad because of lack of research opportunities at home and more generally, a mismatch of supply and demand.
- For some of the Acceding countries, the transition took a heavy toll on their stock of researchers. Estimates for Estonia are as high as a 30% reduction of research personnel through domestic and international mobility; official statistics tell of more than 5,000

Ukrainian scientists leaving in the 1990s. At the same time, the quality of skills of S&T personnel are receiving more and more attention and being sought of by many to meet demands in areas such as IT.

Figure I-3c. H-1B visa beneficiaries by country of birth, 2001.



Source

Source: DG Research / MERIT

Data: US Immigration and Naturalization Service

Note: the H-1B is the visa for entry of workers in specialty occupations and people are admitted based on professional education and skills (e.g. IT specialist)