

The mobility of researchers

B 1-5

When researchers are internationally mobile,⁷⁹ knowledge is disseminated and new combinations of knowledge can be made – favouring the emergence of innovations.⁸⁰ On average, mobile researchers are more productive than those who remain in their home country. For this reason, they are of particular relevance for an R&I policy that is oriented towards research excellence.⁸¹

Net migration balances among publishing researchers

OECD statistics evaluating the migration movements of all publishing researchers give a first impression of the development of net researcher migration and Germany’s international position (cf. Figure B 1-5-1).⁸² According to these figures, there has been

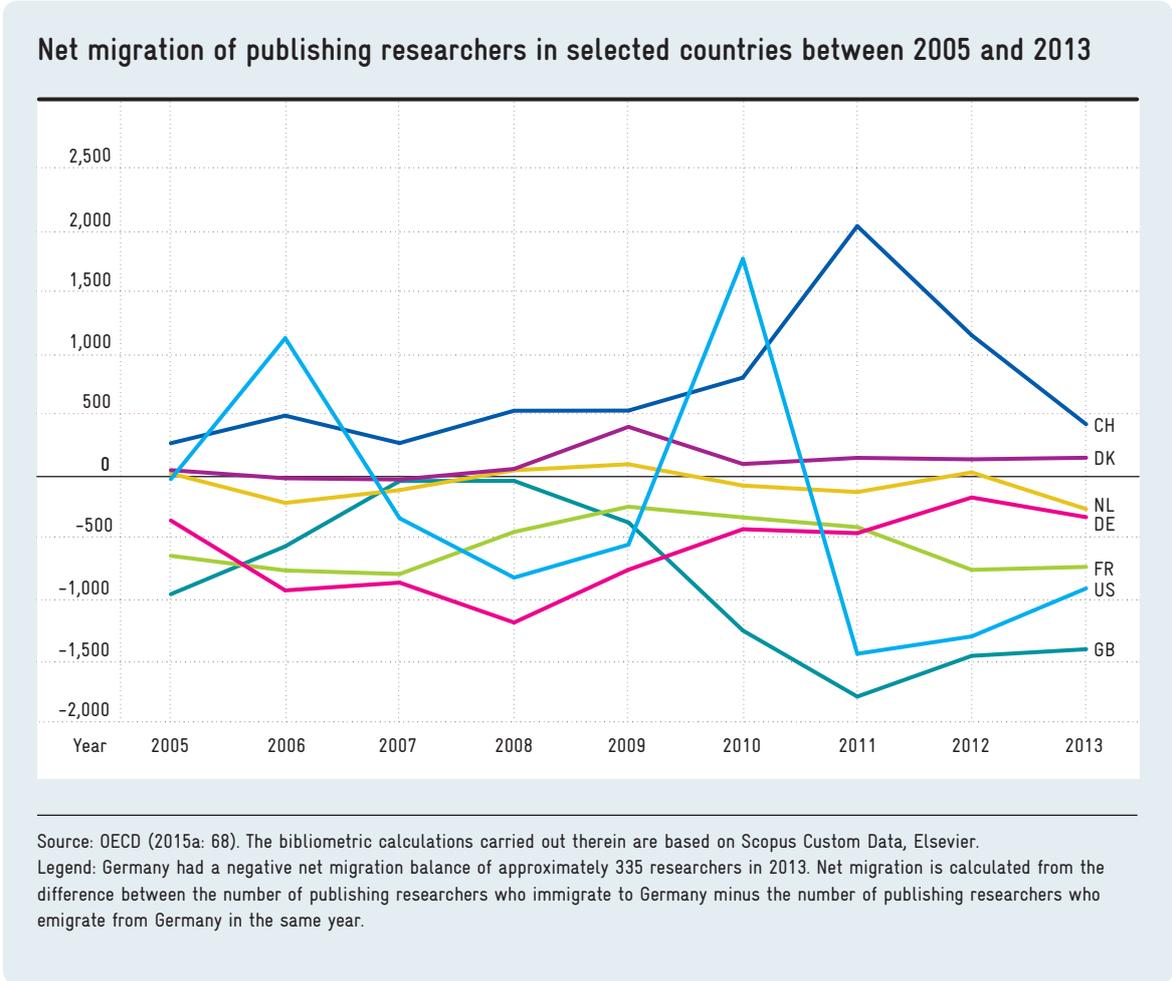


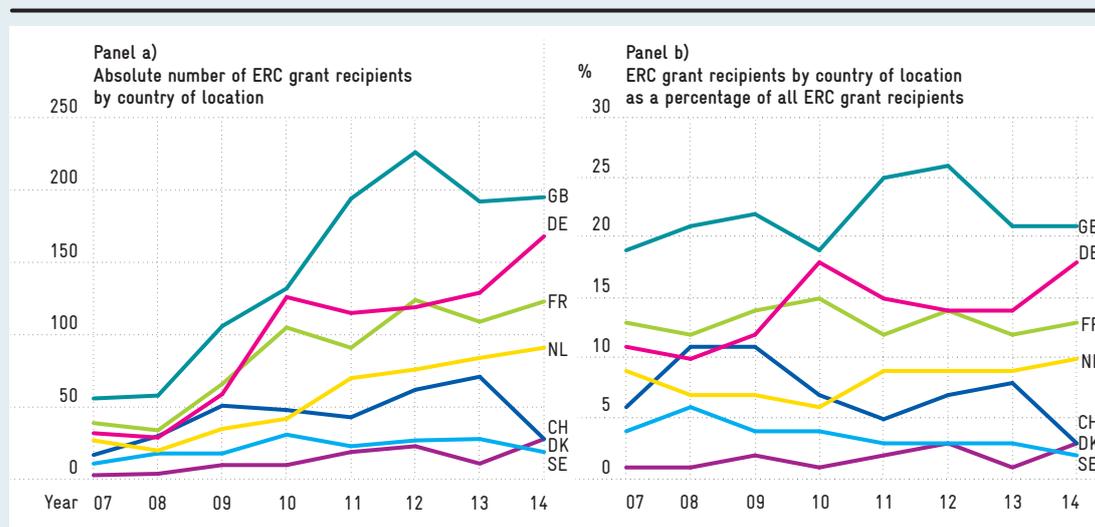
Fig. B 1-5-1

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Fig. B 1-5-2

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Grants of the European Research Council (ERC) according to the country of location of the funded scientists' research institution, 2007 to 2014



Notes: ERC grants include 'Starting Grants', 'Advanced Grants' and 'Consolidator Grants'. Under the different funding lines, top scientists receive funds amounting to between €1.5m and €2.5m for a period of five years.
Source: own diagram based on EFI (2011, 2014) and calculations using the EU ECORDA database.
Legend for Panel a): In 2014 there were 168 ERC grant recipients at research institutions in Germany.
Legend for Panel b): In 2014, 18 percent of all ERC grant recipients were at research institutions in Germany.

an upward trend since 2008, although the migration balance was again negative in 2013, i.e. the number of researchers emigrating was higher than the number of those immigrating. On balance, therefore, Germany loses several hundred researchers to foreign research institutions every year.⁸³

A comparison (based on OECD statistics for 2013) between the publication performance of mobile researchers with that of non-mobile researchers residing in Germany reveals⁸⁴ that an above-average number of researchers who publish prolifically have returned to Germany.⁸⁵ The publication performance of newcomers from abroad is also slightly above-average. However, in the case of returning researchers, the figures for the science systems in neighbouring countries like Switzerland, France and the Netherlands are still slightly better than in Germany. Moreover, when it comes to newcomers, research locations such as Switzerland, the USA, Denmark and Sweden are also more successful than Germany. Thus, there is room for improvement for the German science system which should be better exploited.⁸⁶

ERC grants in an international comparison

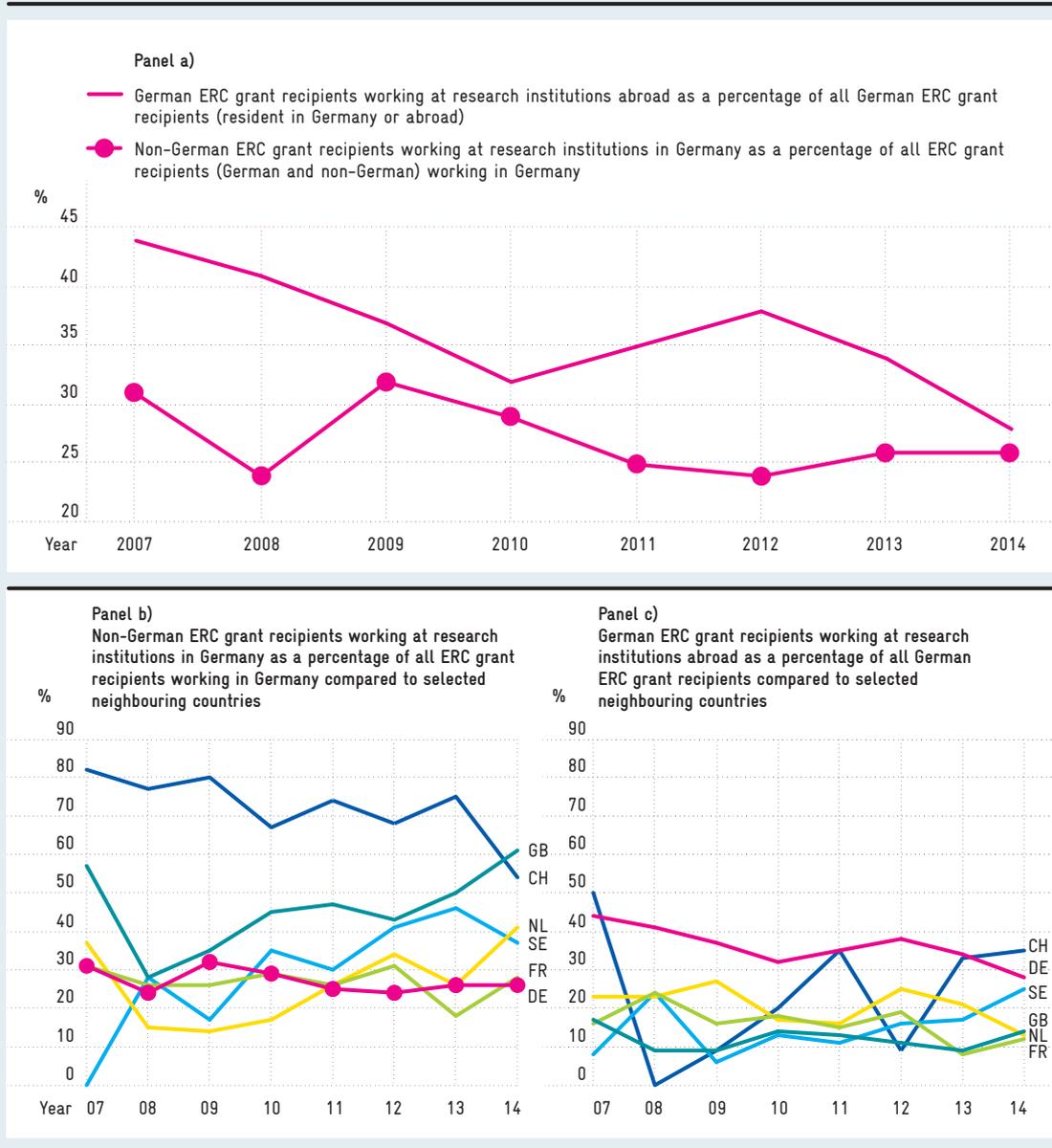
If the impact of mobility on a country's top-level science is measured by the number of attracted ERC grants (cf. Figure B 1-5-2), the picture for Germany is again mixed.⁸⁷ Since 2007 there has been an almost continuously rising trend in the absolute number of ERC grants for German locations (from 32 to 168 grants, cf. Figure B 1-5-2, panel a). However, the number of ERC grants has risen across all countries in this period, so that Germany's relative share rose to almost 20 percent up until 2010, but has not risen any further since (cf. Figure B 1-5-2, panel b).

But how does the international mobility of researchers influence the country-specific location of ERC grants, and what conclusions can be drawn from this about the attractiveness of Germany as a science location? To answer this question, the nationality of the ERC grant winners can be compared with the country in which they won their ERC grant (cf. Figure B 1-5-3, panel a). This reveals that of all the Germans who have won an ERC grant, a considerable proportion are

Fig. B 1-5-3

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Grants of the European Research Council (ERC) according to the country of location of the funded scientists' research organisation and according to the scientists' nationality, 2007 to 2014



Source: own diagram based on EFI (2011, 2014) and calculations using the EU ECORDA database.

Notes: ERC grants include 'Starting Grants', 'Advanced Grants' and 'Consolidator Grants'. Under the different funding lines, top scientists receive funds amounting to between €1.5m and €2.5m for a period of five years.

Legend for Panel b): In 2014, foreign researchers won 26% of all ERC grants in German research institutions; in the United Kingdom, foreign researchers won 61 percent of all local ERC grants.

Legend for Panel c): In 2014, 28 percent of all German ERC grant recipients won their grants at research institutions abroad, while 12% of all French ERC grant recipients won their grants at research institutions abroad.

not residing in Germany but abroad (about 28 percent in 2014). However, the trend is declining noticeably. At the same time, the percentage of foreign researchers who won an ERC grant while residing in Germany has remained more or less stable over the years. Most recently, it has been approximately 25 percent. Germany thus positions itself in the middle of the table compared to neighbouring European countries, while Switzerland and the United Kingdom respectively record much higher immigration (cf. Figure B 1-5-3, panel b) and simultaneously lower emigration of their own top researchers (cf. Figure B 1-5-3, panel c).

Further information on the attractiveness of a science location can be obtained from surveys of researchers on their reasons for migrating.⁸⁸ The reasons most commonly given in these interviews are the scientific excellence of the host institution, collaboration with outstanding research teams, better career prospects in the host country, and a powerful research infrastructure.⁸⁹ In this context, it can be supposed that the positive trends in the international mobility of researchers in Germany in recent years have, among other things,⁹⁰ been promoted by the Excellence Initiative.⁹¹