action plan, with 15% not addressing the issue at all.

Petra Bender is diversity manager at the Research Centre Jülich in Germany, a multidisciplinary publicresearch centre that runs positive-action programmes for women researchers. She says that despite her efforts to explain how gender impact could be written into funding proposals, some of her colleagues remain perplexed. "Many researchers just don't understand the concept of mainstreaming," she says, adding that a typical comment was: "But crystals don't have gender."

Those projects that did make an effort to develop a gender action plan included target-setting to achieve gender balance in project management positions, plans to develop mentoring schemes for younger researchers and organizing outreach activities for schools. Many of these could easily be adopted by future applicants in need of inspiration. Not surprisingly, the promotion of women in research was better addressed than the gender implications of research which, for many projects outside the life sciences, is not immediately obvious.

Framework projects selected for funding will now be encouraged to improve their gender action plans as part of contract negotiations, and the best ideas will be shared. "We're not looking for perfection in the proposals. It's a process that will take time, but at least the visibility of the issue has been achieved," says Nicole Dewandre, head of the Women and Science Unit.

## NATIONAL GENDER IDENTITY

But with the EC funding only 5% of civil research in Europe, national governments and companies must take up the gauntlet if rapid change in women's participation in science is to happen. Above all, they need to be accountable. As one speaker at the Berlin conference put it: "What gets measured, gets done."

Putting more women into senior positions will not be enough on its own. "We need to move beyond numbers to a cultural change in organizations that is truly diverse, inclusive and accommodating," says Teresa Rees, from the school of social sciences at the University of Cardiff, UK, and rapporteur of the EC's expert group on women in industrial research.

Sally Goodman is a freelance science writer based in Paris.

## The quota conundrum

Sometimes you have to break the law to get things right. Germany's Research Centre Jülich pushed the boundaries with positive discrimination in 1999. Now the University of Groningen in the Netherlands has intentionally flouted anti-quota laws.

Last year, Groningen's natural-sciences faculty set up the Rosalind Franklin Fellowships, offering five women-only tenure-track positions - even though positive discrimination is illegal in the Netherlands.

Despite the legal transgression no one protested, says mathematician Ruth Curtain, chair of the search committee: "The academic world in the Netherlands is very embarrassed about gender discrimination."

Requirements for the Franklin fellowships named after the British X-ray crystallographer whose work contributed to the discovery of DNA structure included postdoctoral experience abroad, publications

world and the first fellows started work this autumn. After five years, if their evaluations are successful, they will be offered permanent professorships.

in top journals and proof of international recognition. The scheme drew 112 applications from around the



Franklin fellows, from left: Charlotte Hemelrijk, Heide Gluesing-Leurssen, Petra van Koningsbruggen, Elisabetta Pallante and Beatriz Noheda.

"We want to send a clear message that there are opportunities for talented women, beyond a string of temporary, postdoc appointments," says Curtain. Women were attracted by the fellowships' broad and nonspecific range of research fields, she says.

"When you advertise positions for a specific field, you often have only a few women applying, because in many fields the imbalance starts from the lower levels," Curtain says, adding that it is also important to let women set up their own lines of research.

The dean of the faculty, Douwe Wiersma, supported the programme, though many of his male colleagues disapproved. "The majority believe there is no discrimination in selection committees, and that gender inequality will redress itself naturally as more women enter the science field," Wiersma says.

In reality, says Curtain, qualified women don't get short-listed for higher positions — despite the rising number of women PhDs during the past two decades.

"The usual answer is: 'We would like to appoint women, but they simply do not apply," says Curtain. The response to the Rosalind Franklin programme disproves that notion, she points out.

In Germany, the Research Centre Jülich was also criticized by some when it advertised tenure-track positions for women (see Nature 398, 550; 1999).

"We offered only three positions a year so of course you can't change the statistics with that alone," says Petra Bender, the centre's diversity manager. But the scheme had a knock-on effect, with numbers of women researchers at the institute doubling to 15% since 1998. "It has led to more women applying for other jobs because they now see us as an employer who may offer opportunities to young women," she says.

Subsequently, the University of Munich proposed a scheme to increase universities' funding if they put more women in high positions. The Bavarian research ministry refused, saying that female presence in science must develop "naturally".

Nicola Nosengo recently completed an internship in Nature's Munich office.