



EUROPEAN
COMMISSION

Community Research

WOMEN IN INDUSTRIAL RESEARCH

Good practices
in companies
across Europe

GENERAL INFORMATION



SCIENCE AND SOCIETY

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AWARDS AND RANKING SCHEMES

Introduction

Creating an inclusive and dynamic European Research Area is now the centrepiece of European Union policy on science and technology, and developing the full potential of women in science is a fundamental component. Industry plays a leading role in research, innovation and development in the European Union, with some 56% of investment in these areas coming from private companies. Yet women make up only around 15% of industrial researchers across the EU.

For the purposes of this report, 'researchers' are defined as scientists, academics or engineers who are professionals engaged in the conception or creation of new knowledge, products processes, methods and systems, and in the management of relevant projects. This does not include technicians or administrative staff.

In order to achieve a competitive, knowledge-based economy, the Barcelona summit in 2002 set the R&D investment target of 3% of GDP by 2010, to come mainly from the private sector. To reach this goal, the number of researchers in Europe will have to increase enormously. This is a great challenge to improve the numbers and careers of women in research, especially in industry.

The report of the Women in Industrial Research (WIR) Expert Group, *Women in industrial research – A wake up call for European industry*, reveals the strong under-representation of women researchers in European industry, reaching a mere 15% on European average, and only about half the proportion in higher education. There are significant differences between Member States. At one end of the spectrum, women comprise over 28% of industrial researchers in Ireland, compared with only 9% on Austria. At the same time, female graduates from European universities now outnumber men, and in 2000 the proportion of women qualifying in science, mathematics, computing and engineering increased by 10% on the previous year, reaching 41% in science, maths and computing.

In Europe, the labour supply is getting smaller, and ageing. The demand for highly qualified and innovative staff is growing, and if the EU is to reach its Lisbon goal of becoming *the most competitive and dynamic knowledge-based economy in the world* it is crucial that this talent pool of qualified women should realise its potential in all sectors.

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Clearly, this is not yet the case. Urgent action is needed to mobilise this neglected reservoir of talent. To this end, there are many initiatives for companies to consider – and some of them are described in this brochure.

Openness and transparency within company cultures is a prerequisite for developing and encouraging staff potential. Researching and publishing data on the position and role of women in the organisation is the first step towards drawing up an effective policy for gender equality.

Evidence of the business case for diversity and gender balance grows stronger by the day. The work of the WIR Expert Group sets out a vision for 2010 where companies value and develop human talent, and ensure that both women and men have a sensible work/life balance. There should be a better gender balance of men and women in laboratories and in senior management.

Industry is one of the key movers in R&D, and if companies are to raise their attractiveness as employers among qualified women, they must consider the measures outlined here not as optional extras but as crucial steps for the future. Becoming an ‘employer of choice’ means being aware of and adapting to changes in society and culture – an important part of becoming the ‘supplier of choice’ in a globalised world.

This brochure is not a comprehensive analysis, but a series of case studies based on data supplied by companies themselves in response to a questionnaire sent out by the European Commission, members of the WIR Expert Group and the European Industrial Research Management Association (EIRMA).

The examples cover many initiatives in the areas of recruitment, networking, mentoring, monitoring, diversity, flexibility and family friendly policies – to name just some. In order to demonstrate what these measures mean for women themselves, it includes interviews with a number of individuals at different stages of their careers as well as HR representatives in leading R&D companies.

These examples will offer companies new ideas for practices and policies that can help them to make the most of female potential in their workforce and thereby improve their competitive position, and act as a stimulus for further progress towards equal opportunities for women in industrial research.

CHECKLIST: What companies can do

A STIMULATING, CREATIVE AND GENDER-AWARE COMPANY ETHOS INVOLVES:

- A commitment from the top to gender equality, diversity policies and dignity at work – integrated into strategy, reporting mechanisms and performance review systems;
- Monitoring, evaluation, auditing, statistics, surveys, staff consultation, and analysis of policies;
- An attractive work environment, which encourages innovation, offers career development opportunities, values output rather than presence and brain hours rather than body hours;
- A high degree of transparency and two-way communications, merit-based open recruitment, promotion and staff review procedures;
- Flexible work schedules, opportunities for distance working if appropriate, alternatives to excessive travelling at certain times in the life cycle, through use of new technologies or reassessment of essential job features;
- Sound work/life balance policies: maternity and paternity leave, childcare facilities or subsidised care, emergency leave to care for sick dependents (if not adequately covered by legislation);
- Partnerships arrangements to encourage young women into science with local schools, colleges and universities, offering internships, fellowships, role models, mentors, speakers and work experience and;
- Modern role models, networking and mentoring schemes.

I want to thank all the companies who have supported this work, the members of the WIR Expert Group, the research team of ULB and all those companies who have contributed to the preparation of this brochure, especially Kate Holman (ESN).

Dr RAINER GEROLD

Director,
European Commission
DG Research,
Directorate: Science and Society

ASTRAZENECA WORLDWIDE in figures

TOTAL NUMBER OF RESEARCHERS :10,000

WOMEN RESEARCHERS: about 50%

WOMEN IN RESEARCH MANAGEMENT POSITIONS: 29% (of research managers)

TOTAL NUMBER OF EMPLOYEES: 58,000

ANNUAL TURNOVER: €16 billion

R&D INVESTMENT: €2.7 billion

HQ LOCATION: UK

NUMBER OF R&D LOCATIONS:
9 – Sweden, UK, USA, Canada, India

PATENTS: between June 1999 and June 2002, 17% of AstraZeneca's patents included female inventors. During the same period, 21% of all named inventors were female

Data 2002

MAINSTREAMING DIVERSITY MANAGEMENT

AstraZeneca has adopted a very structured system of diversity improvement plans, a logo, slogan and departmental monitoring, all built into the mainstream management role.

The drugs firm prizes diversity for the creativity it brings – and in a global organisation, that means cultural and national differences as much as gender and ethnic background. The company recognises the need to recruit and retain the most creative, innovative and productive people from within the pharmaceutical industry and elsewhere. And a key constituent of the company's diverse workforce is women.

A PLANNED APPROACH TO DIVERSITY

To make diversity work, the company aims to involve its employees in creating an inclusive organisation, which works with differences to maximise business benefits. To this end, it devolves responsibility for diversity to line managers, rather than keeping it within the realm of human resource specialists.

Thus, the diversity programme in R&D is implemented by action teams made up of line managers. This means the programme is not seen as tokenism but as the response to a business need. Senior management team members are given responsibility for developing a diversity improvement plan (DImp) for their area, and progress against that plan is reviewed each year.

"I feel that this time we have a great way of getting the diversity message integrated into the R&D organisation," says Jenny Holmes, Astra-Zeneca's R&D Diversity Director. "First, we have 'branded' diversity as a separate programme with a logo, a slogan: *Diverse minds – common goals*, and a vision statement: 'To build a more inspiring, innovative and creative culture that everyone wants to belong to and contribute to'.

"Secondly, communication is not just 'top-down'. We try to spread diversity awareness to everyone. We use poster sessions, and our diversity website contains training materials, questions and answers, and details of the DImps. One particularly creative way of awareness raising is interactive theatre group performances.

"Thirdly, the diversity concept is one people can buy into. It's not about complying with legislation, but is put over in messages such as '*Diversity is a business need*', '*We must utilise our diversity*', and '*Diversity helps creativity*'."

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www.astrazeneca.com
www.astrazeneca.com/annualrep2002/pdf/CRS_report.pdf



AstraZeneca 

INTERVIEW

PLAYING FOR REAL

*“The theatre performances are very hard-hitting – they make me squirm in my seat,” says **Nicola Marchant**, an associate director at AstraZeneca’s Drug Metabolism and Pharmacokinetic laboratory in the UK. “We have a group of young actors who tour AstraZeneca sites presenting a set of short plays that bring up various situations to do with diversity – bullying, sex discrimination, treatment of ethnic minorities and so on. The interesting part is when the spotlight turns on the audience. The acting suddenly stops and it’s up to the audience to rewrite the script. It really makes you think when you have to step into this crisis situation and say, ‘Stop, do it this way’.”*

Interactive theatre is one tool in the pharmaceutical company’s diversity campaign, but not the only one. Dr Marchant – the only woman in the team of six that manages her laboratory – appreciates working in an atmosphere where there is no taboo on discussing family life, and a large degree of flexibility to meet childcare responsibilities. “That’s important in a lab that has ten maternity returnees out of 125 staff,” she says. “I certainly don’t feel there is a glass ceiling. The company aims to achieve a better gender and nationality balance at senior levels but, as regards men and women, my laboratory is 50/50 already.

“Things have changed so much since I started working in the pharmaceuticals sector in 1988,” she continues. “In those days, I would be invited to speak at a university conference and then given accommodation in the male block, because everyone assumed a ‘doctor’ was a man. That certainly doesn’t happen any more.”

INTERVIEW

THE BENEFITS OF TEAMWORK

*“Family friendly policies have made all the difference to my career,” says **Annabelle Zaar-Hedin**, Director of Clinical Operations at AstraZeneca’s site at Södertälje, just south of Stockholm.*

“I started work in the pharmaceutical laboratory in 1979. My big break came when my second child was two years old and I was offered a management position. I thought about it – and turned it down, because of the extra demands it would make, on top of bringing up two children. Then the company offered me the post at three-quarters time, so I took it, and learned to delegate – to work through my colleagues. As about 70% of them are women, this has the positive knock-on effect of opening up options for them.”

Zaar-Hedin points out that equal opportunity is a big plus in recruitment, because it means you choose the best person for the job, rather than worrying about whether they might take a year or two off for family reasons. It is part of taking a long-term perspective. Aiming for diversity also pays off: “In a relatively small country like Sweden we are dependent on the cultures around us, and a diverse workforce brings a variety of mindsets to the problems we are tackling.”

AstraZeneca employs 10,000 people at its Swedish sites, almost half of them in R&D. “Sweden does have anti-discrimination legislation, and parental leave is generous – a year per child,” explains Zaar-Hedin. “The company offers staff a range of options such as part-time work, flexible hours and telework, and we have parity of numbers between the sexes – until you get to the top management posts. The main obstacle now seems to be that women are reluctant to take on responsibility because of the time commitment it involves – because even in Sweden childcare is not equally shared. Amongst younger staff, a mother might take nine months off work and the father three months. AstraZeneca has a good record at aiming for equality, but there is still a lot to do, and it takes time.”

Specific measures

- ✓ Regular monitoring by top management
- ✓ Objectives for top management
- ✓ Awareness-raising measures for the management, project leaders, etc
- ✓ Mentoring internal/cross mentoring programmes
- ✓ Special training/coaching for female high potentials
- Women’s network
- ✓ Diversity groups
- ✓ Childcare
- Family services
- ✓ Flexible time arrangements
- ✓ Teleworking
- ✓ Recruitment efforts
- ✓ Career planning
- Flexible career arrangements
- Others

CROSSING THE GENDER FENCE

Belgian multinational Bekaert finds that its attempts to bridge the gender divide are hampered by the traditional image of its core products – barbed wire, steel cords and fencing – as being a ‘no woman’s land’.

Bekaert is a healthy and lucrative company with a turnover of €2.8 billion a year. Yet its bread-and-butter business of adapting metal for a range of everyday uses does not always set the heart racing, even among specialists.

“Steel wire drawing and metal transformation does not appeal that much, even to technicians and academics,” admits Ignace Lefever, Bekaert’s technology liaison officer. He confirms that this field has long been seen as a “man’s world”.

At Bekaert, women have tended to perform administrative functions in the offices while, on the shop floor, less than 1% of the workers are female. Research at the company has also traditionally been male dominated.

SEX APPEAL IN THE LAB

In recent years, Bekaert has been involved in a drive to attract more women to the company’s labs, but progress has been sluggish. Out of a pool of 78 academic-level researchers only five are female. Women took part in developing two of the 30 products for which the company sought patents in the last year.

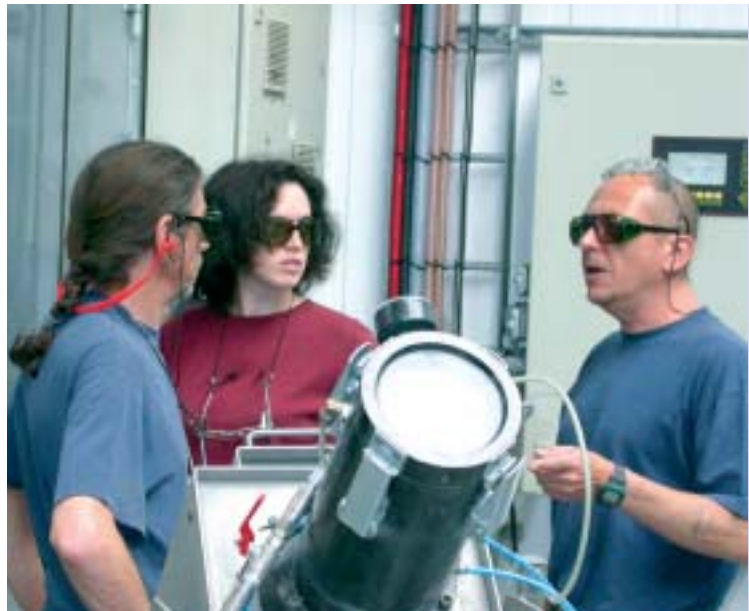
“One reason why we have not been able to remedy this situation quickly is the shortage of qualified personnel. Less than 10% of graduates with a master’s degree in mechanical engineering or material sciences are women,” notes Lefever.

To address the root of the problem, Bekaert has been taking its message out to young people. “For the last few years, we have been proactively inviting students (even middle school ones) to visit the company and participate in innovation workshops,” says Lefever. “Bekaert is also present at university contact and orientation days.”

Although getting more women into the ranks of academic researchers is a longer-term strategy, the company has also scored some more immediate successes. In the space of a year, Bekaert has been able to more than treble the number of female research technicians to 25, or one-quarter of the total.

Its drive to recruit more women promises to bear some fruit in the near future. Since the company introduced what it calls its equal opportunities career path, it has seen

BEKAERT in figures
TOTAL NUMBER OF RESEARCHERS: 80
WOMEN RESEARCHERS: 5 (6%)
TOTAL NUMBER OF EMPLOYEES: 16,836
ANNUAL TURNOVER: €2.8 billion
R&D INVESTMENT: €50 million
HQ LOCATION: Belgium
NUMBER OF R&D LOCATIONS: 1
PATENTS: women helped to develop 2 of the 30 products for which the company sought patents
Data 2002



a 25% jump in the number of female candidates responding to job vacancies. Lefever is upbeat about this trend and believes it will soon translate into a better gender balance in Bekaert’s labs.

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STEELY DETERMINATION

Being a female metallurgist and materials engineer, **Hilde Delrue** is one of a rare breed – but she has proved her mettle to her male co-workers.

Since 2001, the young researcher has held the position of thermal spray development manager at Bekaert's Advanced Coating Division. Prior to that, she worked for two years managing the metallurgical laboratory at the Bekaert Technology Centre.

But her involvement with the Belgian engineering giant goes back to the earliest days of her university career when she used the company's labs to conduct experiments for her degrees. She started working full-time for the company while doing her PhD.

Delrue is casual about being one of a handful of women in a man's world. "Since the start of my university studies, when only one in five students was a woman, men have been in the majority. But this has never bothered me," she claims.

She says that she built up excellent rapport with her male co-students and rarely encountered prejudice during her university years. But entering one of the oldest departments at Bekaert required some adjusting.

"I started my Bekaert career in the more 'traditional' wire drawing environment, where people have less experience with female colleagues or female bosses," she points out. "But I never encountered any prejudice. It just took these experienced lab analysts some time to get accustomed to having a woman who was also younger than them as their 'boss'."

Delrue now works in the newer Advanced Materials Department where the ethos is less deeply engrained. "I've entered a newer domain of technologies where traditions have not yet been established and I feel there is less of a male/female distinction" she explains.

The aspiring young researcher is convinced that Bekaert does offer women a fair chance to climb the management ladder – but at a price that many women may not be able to pay. "I think that career prospects are equal as long as you can put in the demanded effort and time," she notes.

Specific measures

- ✓ Regular monitoring by top management
- ✓ Objectives for top management
- ✓ Awareness-raising measures for the management, project leaders, etc
 - Mentoring internal/cross mentoring programmes
 - Special training/coaching for female high potentials
 - Women's network
 - Diversity groups
 - Childcare
 - Family services
 - Flexible time arrangements
 - Teleworking
- ✓ Recruitment efforts
- ✓ Career planning
 - Flexible career arrangements
 - Others



WHEN WOMEN TAKE THE LEAD

BioAlliance, founded in 1997, is a relative newcomer on the biotechnology research map. But what makes it stand out among its competitors is that its founder and chief executive is a woman, as are two-thirds of its researchers.

The company is based in Paris, France, and works specifically in the field of drug resistance – identified by the World Health Organisation as a real public health problem. Research focuses on strategies to overcome drug resistance in the treatment of cancer and severe infections.

Chief executive and president Dr Dominique Constantini, a physician with 16 years' experience in the pharmaceutical industry, set up BioAlliance with fellow director Gilles Avenard. The company selects new researchers on merit, according to their “experience and ambitions”. Staff are entitled to flexible working and career arrangements and help with childcare.

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BIOALLIANCE in figures

TOTAL NUMBER OF RESEARCHERS: 30

WOMEN RESEARCHERS: 20 (66%)

WOMEN IN RESEARCH MANAGEMENT:
 CEO, 7 project managers

TOTAL NUMBER OF EMPLOYEES: 35

ANNUAL TURNOVER: €600,000

R&D INVESTMENT: €3,000,000

HQ LOCATION: Paris, France

NUMBER OF R&D LOCATIONS:
 3 – Paris and Chatenay Malabry, France

Data 2001

Specific measures

- Regular monitoring by top management
- Objectives for top management
- Awareness-raising measures for the management, project leaders, etc
- Mentoring internal/cross mentoring programmes
- Special training/coaching for female high potentials
- Women's network
- Diversity groups
- ✓ **Childcare**
 - Family services
- ✓ **Flexible time arrangements**
 - Teleworking
 - Recruitment efforts
 - Career planning
- ✓ **Flexible career arrangements**
 - Others

FINDING BIOLOGICAL EQUILIBRIUM

Biology is one of the few areas of scientific research in which women are progressing. From university campuses to company laboratories, women are making their mark on the life sciences.

Women are certainly in the driving seat at Biotecnol, one of Portugal's leading biotechnology research companies. Of the 20 researchers it employs, 14 are women, and female researchers developed both the patents the firm applied for in the last year. "We regard equal treatment as a normal procedure," said a company spokesperson.



"I don't feel any difference as a woman, I am not treated any differently to the men," says Karin Füssel, head of the company's bioassays unit. The German biologist has been working as a senior scientist at Biotecnol since 1999. Since she joined the company, she says, she has not encountered invisible barriers to hold women back.

Yet although an impressive three out of seven research managers (43%) are women, this is still relatively small compared to the overall proportion of female researchers (70%) the company employs.

BIOTECNOL in figures

TOTAL NUMBER OF RESEARCHERS: 20

WOMEN RESEARCHERS: 14 (70%)

TOTAL NUMBER OF EMPLOYEES: 25

ANNUAL TURNOVER: €224,000

R&D INVESTMENT: €820,000

HQ LOCATION: Portugal

NUMBER OF R&D LOCATIONS: 1

PATENTS: female researchers developed both the patents the firm applied for

Data 2002

JUGGLING PRIORITIES

Balancing work and family life in Portugal is easier than in some other EU countries. Many full-time crèches exist, and it is standard for Portuguese women to continue working when they have children. Although the company is too small to run its own crèche system for its female employees, Biotecnol does, however, allow some flexibility in working arrangements. "Working rules are flexible enough to be adapted to some personal needs," explains Füssel. "Where the work allows, it is possible, for instance, to work from home for part of the day."

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CLIMATE CHANGE IN THE WORKPLACE

Setting out to be “a socially committed, responsible company”, DSM makes much of its respect for employees and for the communities it works in. The organisation started life in the coal industry just over a century ago, as Dutch State Mines. Since then its profile has changed radically. In 2002, DSM sold its petrochemical business. A new strategy aims to achieve a turnover of €10 billion by 2005, focusing on the development of speciality chemicals.

The company’s mission statement highlights investment in the knowledge and skills of its staff, and opposition to discrimination on any grounds, including gender and sexual orientation.

“Our ability to recruit new talent in a labour market in which the competition, particularly for technical specialists, is growing increasingly fierce is likely to prove essential for our success as a business,” recognises DSM. In 2002, it introduced a new web-based recruitment system in order to reach a wider pool of candidates.

ROLLING PROGRAMME

The company, which operates in Europe, the USA and Canada, has set itself the target of 20% of women in management posts by 2005. It has a declared equal pay policy, and offers coaching and mentoring to help individual staff members fulfil their potential. In 2003, DSM launched a rolling programme of ‘working climate analyses’ in all its business groups, lasting until 2006, to achieve better working conditions.

Yet despite implementing flexible work time and teleworking arrangements, plus awareness raising for managers, the company recognises an ongoing problem when it comes to changing attitudes. For senior management, commitment to a career is still measured in terms of ‘being present’ rather than output and productivity. “Working flexible hours is still not really accepted,” admits a DSM human resources spokesman.

DSM in figures

TOTAL NUMBER OF RESEARCHERS: 2,000

WOMEN RESEARCHERS: 400 (20%)

WOMEN IN RESEARCH MANAGEMENT:
1 R&D director (0.5%);
20 resource managers (20%);
50 project managers (10%)

TOTAL NUMBER OF EMPLOYEES: 22,000

ANNUAL TURNOVER: €8 billion

R&D INVESTMENT: €300 million

HQ LOCATION: Heerlen, Netherlands

NUMBER OF R&D LOCATIONS: 50

Data 2001

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Specific measures

- ✓ **Regular monitoring by top management**
Objectives for top management
- ✓ **Awareness-raising measures for the management, project leaders, etc**
Mentoring internal/cross mentoring programmes
Special training/coaching for female high potentials
- ✓ **Women’s network**
- ✓ **Diversity groups**
- ✓ **Childcare**
Family services
- ✓ **Flexible time arrangements**
- ✓ **Teleworking**
Recruitment efforts
Career planning
Flexible career arrangements
Others

IN SEARCH OF THE MOTHERS OF INVENTION

Far more women could become successful entrepreneurs, with innovative and marketable ideas, if they were aware of the opportunities. This was the conviction that led the Danish Technological Institute to launch its *Heroines of Tomorrow* programme, aimed at increasing the number of technology-based business start-ups by women.

According to DTI Director Jane Wickmann, some 17-18% of the Danish entrepreneurs who contact the institute for advice and financial support are female. "We wanted to make a special effort to motivate more women," she explains. The institute gathered a group of potential self-starters and worked with them through conferences, workshops, information and case studies. "By the end of the project period we could see the effect on the figures, but they rose only for a short period and then dropped to the same level," she reports. Nonetheless, a new company – run by women – has now taken over the project and runs a range of activities.

DEMAND FOR ENGINEERS

The DTI is an independent body, offering technological services to business and the community. Set up in 1906, it is one of the oldest organisations of its type in the world, as well as one of the biggest. But in common with many private companies, its efforts to achieve gender balance among its own technical staff are hampered by a shortage of qualified female engineers. "The generally low share of women in this field in Denmark is reflected in our recruitment of researchers," admits Wickmann.

The DTI has also taken steps to encourage female inventors: people with business ideas who would rather license them to an existing company to market than start a business of their own. Here again, the proportion of women is rising – but too slowly, says Wickmann. "The biggest problem for Danish women is that they are simply not aware of the possibilities for success."



DTI in figures

TOTAL NUMBER OF RESEARCHERS: 673

WOMEN RESEARCHERS: 154 (23%)

WOMEN IN RESEARCH MANAGEMENT: 1 director (16.6%); 7 technology centre managers (17.7%)

TOTAL NUMBER OF EMPLOYEES: 1,074

ANNUAL TURNOVER: €91.36 million

R&D INVESTMENT: €30 million

HQ LOCATION: Taastrup, Denmark

NUMBER OF R&D LOCATION: 6 in Denmark – Taastrup, Århus, Herning, Odense, Vejen and Hirtshals (North Sea Centre), 1 in Sweden

PATENTS: the DTI filed 4 patent applications in 2001, and 4 in 2002, but women were not involved in their development

Data 2001

Raising such awareness is a top priority. "Once they have been woken up they are very eager to use all the support measures available." Yet few are in favour of special treatment – most prefer to attend mixed courses, for example. "They want to make it on the same terms as men," she explains. "But there's still a lot to do."

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Specific measures

Regular monitoring by top management

Objectives for top management

Awareness-raising measures for the management, project leaders, etc

✓ Mentoring internal/cross mentoring programmes

Special training/coaching for female high potentials

Women's network

Diversity groups

Childcare

Family services

✓ Flexible time arrangements

✓ Teleworking

✓ Recruitment efforts

✓ Career planning

✓ Flexible career arrangements

Others

Ford Motor Company

Car manufacturing

FORD MOTOR COMPANY WORLDWIDE in figures

TOTAL NUMBER OF EMPLOYEES: 350,321

ANNUAL TURNOVER: \$162,6 billion

HQ LOCATION: Dearborn, Michigan, USA

FORD'S EUROPEAN RESEARCH CENTRE,
AACHEN, GERMANY

TOTAL NUMBER OF RESEARCHERS: 272

WOMEN RESEARCHERS: 16 (6%)

NEWLY RECRUITED WOMEN RESEARCHERS: 4

WOMEN IN RESEARCH
MANAGEMENT POSITIONS: 3 (5%)

PATENTS: women developed 1 of Ford's 43 patent
applications in 2001-2

Data 2002



DRIVE FOR DIVERSITY

Celebrating its 100th anniversary in 2003, Ford Motor Company is the world's second-largest automotive company, owner of the Aston Martin, Ford, Jaguar, Land Rover, Lincoln, Mercury, Mazda and Volvo brands. With some 350,000 employees worldwide at the end of 2002, its workforce is as varied as its customer base.

Ford is committed to offering all its employees an inclusive work environment where they can draw on their individual experiences and develop their different skills. It aims to become the global employer of choice. In driving diversity, it also sees a competitive advantage: Ford is convinced that increasing and valuing the diversity of its employees will not only lead to higher motivation at the workplace, but also help the company to understand its customers' needs better.

Worldwide, Ford is implementing a wide range of equal opportunity policies including flexible working hours, job-sharing, teleworking, and company support of child-care facilities. At management level, the company runs diversity awareness raising and monitoring programmes, and sets objectives to promote equal opportunities for women, and indeed all employees. One key element is the zero tolerance policy towards harassment and discrimination – either explicit or implicit – in the workplace.

Gabriela Hahn, Chairperson of the Women's Engineering Panel (WEP) says: "In hard business terms, the people who buy our cars are more diverse than ever before, and we need to have an organisation that understands and responds to the requirements of the consumers."

Hans Jablonski, Diversity Manager Germany, explains the business case for Diversity at Ford Motor Company: "By valuing and effectively managing diversity, both individuals and organisations will be better equipped to meet the challenges presented by global competition. There is both a business case and a human relations, or people, case for valuing diversity. There is a strong business case for appreciating and managing diversity. It is based on demographic changes in the workforce and our customer base, along with the advantages of improved talent retention and increased productivity."

WOMEN AT THE EUROPEAN RESEARCH CENTRE

Ford's central European Research Centre located in Aachen, Germany, employs scientists and engineers from more than 25 different countries. With an upward trend since the centre's inauguration about a decade ago, women currently make up 6% of the 272 research staff. At senior level, 5% of the research managers are female. Women also play an increasingly important role at several other European Ford facilities where research and development work is being conducted,

such as Dunton and Dagenham (both in UK) or Merkenich (Cologne, Germany). This development is – at least partly - due to a set of initiatives that Ford has already implemented in selected European markets to increase the proportion of women in research positions for the long term. For instance, scholarship schemes provide assistance to female university students, while the Try-Ing programme encourages girls in high school to study engineering disciplines and to pursue a career in engineering. Both programmes are farsighted initiatives designed to boost recruitment of female talent and to address the gender imbalance in the automotive industry, while promoting Ford as an employer of choice for women.

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Information:

- *Diversity as Strength* brochure with good practice examples: www.ford.de/ie/ueber-ford/-/uford12
- Career and job: www.ford.de/karriere
- Diversity and career: www.mycareer.ford.com/ONTHETEAM.ASP?CID=15



INNOVATIVE GOOD PRACTICE EXAMPLES IN SELECTED EUROPEAN COUNTRIES

- Henry Ford scholarship programme for female university students
- Try-Ing programme for female high school students
- Activities of the local diversity groups (women’s networking conferences)
- Training for specific target groups (e.g. interview training for women)

Specific measures

- ✓ Regular monitoring by top management
- ✓ Objectives for top management
- ✓ Awareness-raising measures for the management, project leaders, etc
- ✓ Mentoring internal/cross mentoring programmes
[Special training/coaching for female high potentials](#)
- ✓ Women’s network
- ✓ Diversity groups
- ✓ Childcare
- ✓ Family services
- ✓ Flexible time arrangements
- ✓ Teleworking
- ✓ Recruitment efforts
- ✓ Career planning
- ✓ Flexible career arrangements
- ✓ Others: job-sharing, personal development plans, part-time working, skip level meetings, internal diversity awards, senior management sponsorship, diversity training



IBM WORLDWIDE in figures	
ANNUAL REVENUE: \$81 billion	
R&D INVESTMENT: more than \$5 billion	
NUMBER OF R&D LOCATIONS: 8 research, 22 development	
TOTAL OF EMPLOYEES: 325,000	
HQ LOCATION: New York, USA	
IBM IN EUROPE	
TOTAL NUMBER OF RESEARCHERS: 3,300	
WOMEN RESEARCHERS: 485 (14.7%)	
TOTAL NUMBER OF EMPLOYEES: 100,614 Half the workforce in Europe comprises technical experts working with customers to develop innovative solutions	
RESEARCH LABS: 1 – Zurich, Switzerland	
DEVELOPMENT LABS: 4 – Hursley, UK; Böblingen, Germany; Rome, Italy; Paris, France	
Data 2002	

At the EXITE camps, girls learn about science and engineering from IBM's leading women technologists through fun, hands-on activities. In teams, participants undertake various activities and work together to solve challenging problems. As well as chatting with others attending a similar camp in Amsterdam over the internet and via video conference, participants at the last Hursley camp learned practical skills such as how to build a website and take a product from concept, through development, to its final launch.

The girls thought the camp was great, and when questioned in the feedback forms whether women had an equal chance of becoming scientists, engineers or technologists, almost 100% answered "yes". When asked: "Would you consider a career in technology?" 97% of the Hursley campers said "yes". One very significant difference between the first and last days of the camp was the girls' increased confidence, which both teachers and parents noticed. One parent commented: "This is a wonderful opportunity for young girls to experience first-hand what working with IT could be like."



FROM CAMPSITE TO WEBSITE

IBM's hands-on technology camps are designed to generate interest in maths and science among girls, and show them that 'computing is cool'.

The EXITE (EXploring Interests in Technology and Engineering) programme started in the USA at IBM's Endicott site, New York, in 1999, and by 2003 had expanded to 30 locations worldwide. More than 1,000 girls have taken part, at IBM facilities in Europe, the USA, Canada, Latin America and Asia-Pacific. In Europe, the camps take place in Amsterdam, Hursley (England) and Greenock (Scotland). IBM covers the costs and there is no charge to those selected to attend.

SOME IBM DIVERSITY AWARDS

2003-1998:	National Association of Female Executives: Top Company for Women Executives
2003:	European Commission: Excellence in Gender Equity Award to IBM Ireland
2002, 1999:	Total E-Quality Deutschland e.V: Total E-Quality Award to IBM Germany
2002:	Women in Engineering Programs and Advocates Network Founders Award
2002-1989:	Working Mother magazine: 100 Best and Top 10 Companies for Working Mothers
2002, 1999, 1996, 1992:	Women Engineer magazine: Top 50 Companies for Women
2002:	Sixth place on IESE Family Responsible Employer Index List of best places to work to IBM Spain
2002:	Skillpass (Italian ICT e-learning and recruiting consultant): Dream-company to Work For in Italy
2000:	Catalyst Award for exemplary initiatives to advance women through the corporate ranks

E-MENTORING FOLLOW-UP

Following on from the camp, IBM continues to support participants' interest in maths, science and technology through an online mentoring programme that matches IBM employees with students and teachers. Each EXITE participant has a mentor to guide her throughout the school year following the camp. Girls can keep in close contact with their IBM e-mentors and ask advice on school and career issues, or even work on maths and science projects together.

What impact do the camps have on IBM's business? "The goal of the EXITE camps is to increase the number of girls and women who remain interested in science, technology and engineering, so increasing the talent pool," explains Linda Taylor of IBM UK. "More than half the people going through university are women, but women make up only about one-fifth of computing graduates – and this has declined slightly since 1994. Even women who graduate in computer science are less likely to be initially employed in the IT industry, but find opportunities in other sectors."

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Specific measures

- ✓ Regular monitoring by top management
- ✓ Objectives for top management
- ✓ Awareness-raising measures for the management, project leaders, etc
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- ✓ Teleworking
- ✓ Recruitment efforts
- ✓ Career planning
- ✓ Flexible career arrangements

Information:

- <http://www.ibm.com/ibm/ibmgives/grant/education/camp.shtml>
- <http://www.3.ibm.com/employment/us/diverse/awards.shtml#women>
- <http://www.ibm.com/news/us/2003/01/131.html>



INTERVIEW

SOWING THE SEED OF A SCIENCE CAREER

"The thing I remember most about last year's EXITE camp was seeing how the girls' confidence level grew," recalls **Emma Grove**, a member of the organising committee and a web editor who joined IBM UK's Hursley Park camp near Winchester in the south of England in 2002. "As the week progressed, you could hear the noise level steadily rise and when it was over they sent so many cards to say thank you."

Like the staff, the students – 36 girls from three local schools – had an extraordinary week; learning, through doing, what a job such as software testing is really like. "IBM's worldwide EXITE camps are aimed at 12- or 13-year-olds," Grove continues, "because that is the age when girls are most likely to lose interest in science and mathematics. Our simple idea is to stop them dropping science later on by showing the relevance of information technology to all sorts of careers. It is too early for the girls to choose what their career will be, so we are just trying to sow a seed."

The questionnaires the students returned seem to say the idea works. But to help scientific careers take root, the week-long summer camp is just the start of a full year of electronic mentoring. "Each student is paired with a female member of staff, who comes along to the camp for one day and then offers support with project work for the following year."

IMSTAR in figures

TOTAL NUMBER OF RESEARCHERS: 8

WOMEN RESEARCHERS: 4 (50%)

NEWLY RECRUITED WOMEN RESEARCHERS: 1 (50%)

WOMEN IN RESEARCH MANAGEMENT: CEO

TOTAL NUMBER OF EMPLOYEES: 14

TURNOVER: €1.5 million

R&D INVESTMENT: €4 million

LOCATION OF HQ: Paris, France

NUMBER OF R&D LOCATIONS: 2 – Paris

PATENTS: women developed both of Imstar's 2 new patent applications

Data 2002



However, Imstar, like other research companies, has not always found it easy to recruit the women it needs. "There are not enough qualified female researchers graduating from French – or European – universities," says Soussaline. "As a matter of fact, it happens that three of our female scientists are from the Moscow Academy of Sciences."

THE SCIENCE OF ENTERPRISE

Echoing the EU's vision of becoming the most dynamic knowledge-based economy by 2010, Soussaline is a firm believer that science can be successfully married to enterprise. "A good scientist can be a good entrepreneur," she asserts.

She explains that entrepreneurial scientists are served well by their technical knowledge, as well as their ability to see practical applications and communicate them to the research team.

Soussaline identifies giving workers a sense of value and achievement as one of the most important, and rewarding, challenges she faces in running her company. Towards that end, the firm has been focusing on boosting its researchers' innovative potential. "Imstar gives priority to the development of know-how, creativity, flexibility and innovation at all levels," she concludes.

MERIT BENEFITS WOMEN AT IMSTAR

French biotechnology firm Imstar is unusual in more than one way. Not only is its research team split evenly between men and women, but a woman also calls the shots in the boardroom.

Françoise Soussaline, who has worked in the biology field for some 30 years, set up Imstar in 1985. Almost two decades on, it has developed into one of France's leading designers and manufacturers of automated imaging systems for biomedical research, diagnostics and for drug development.

The 50:50 gender divide came about more by accident than design, Soussaline explains.

"In a company of 14 employees, there is no gender 'policy' per se. It's just a normal procedure." The firm does offer flexible working hours, and these are available for men and women equally. Merit and creativity are the foundations of Imstar's philosophy, insists Soussaline. But she suggests that it may be easier for her to recognise that women have what it takes than her male counterparts in other firms. "I know that a large proportion of women scientists potentially have most of the required qualities and skills," she says.



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KEEPING IN TOUCH FROM A DISTANCE

Promoting women's role in business is an important part of the work of the Austrian Institute for SME Research. The organisation not only participates in projects to support women entrepreneurs and employees, it also aims to achieve good working conditions for its staff of 25 researchers – 11 of them female.

In 1997, the institute launched a pilot project to enable all employees to telecommute, offering the maximum possible flexibility in private and working life. Staff can complete up to 50% of their working hours from a distance. They need not 'clock on' at specific times, but they must register their telecommuting time on a list.

Other flexibility options enable employees to select their own hours, or to work part-time. This choice is open to all, and two male and two female researchers are currently working between 50% and 90% of full-time. During parental leave, staff have regular contact with the office and can come into work for as long as they choose. Two women researchers have kept in touch by doing about ten hours a week.

REFLECTING SOCIETY

Balancing work with home and caring responsibilities remains largely a female problem, and the institute recognises that this is why women are most likely to take advantage of these schemes. This will remain the case until jobs like child rearing are more equally shared in society.

KMU Forschung Austria has more than 50 years of experience to build on. It recently undertook a project for the European Commission's Enterprise Directorate-General, assessing measures to support women entrepreneurs throughout the EU and in some other countries.

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INTERVIEW

OPENING THE DOOR TO A RANGE OF OPTIONS

*"I am the type of person who prefers direct contact with colleagues, in the office," says KMU Forschung Austria researcher **Eva Heckl**. So, unlike some of her workmates, she does not telecommute, although she does admit to taking reading home sometimes.*

Heckl works part-time, 25 hours a week, so that she can pick up her two children – aged six and eight – from school most days. The organisation has the flexibility to offer a range of work organisation options to suit its research staff. "It depends on the kind of worker you are," she explains. "The most important thing is for colleagues to accept that there are some people who are not in the office all day long and yet are taking a full part in the work."

She sees no reason why this model of work should not be applied in large and small research companies, and already detects signs of gradual movement in the SMEs she deals with. "In Austria there will be a pool of well-qualified female workers, so enterprises will have to employ more women as well," she predicts. Her work focuses on projects that seek to widen opportunities for women, as well as minority groups such as disabled people, in the workforce.

These changes in society must also bring greater flexibility for men at work. "When you have children, there are always unexpected problems coming up," explains Heckl. "If men have partners who also want to have a successful career, there is pressure at home for them to take a share in dealing with them." At the moment, mothers are the ones who are generally expected to stay at home with sick children, for example. "There needs to be much more acceptance among management and colleagues that men also have a responsibility."

KMU FORSCHUNG AUSTRIA in figures *

TOTAL NUMBER OF RESEARCHERS: 25

WOMEN RESEARCHERS: 11 (44%)

WOMEN IN RESEARCH MANAGEMENT: 1 (25%)

TOTAL NUMBER OF EMPLOYEES: 28

ANNUAL TURNOVER: €1.7 million

R&D INVESTMENT: €980.000

HQ LOCATION: Vienna, Austria

NUMBER OF R&D LOCATIONS: 1 – Vienna

Data 2002

KMU FORSCHUNG AUSTRIA
 Austrian Institute for SME Research



Specific measures

- ✓ Regular monitoring by top management
- ✓ Objectives for top management
 - Awareness-raising measures for the management, project leaders, etc
 - Mentoring internal/cross mentoring programmes
 - Special training/coaching for female high potentials
 - Women's network
 - Diversity groups
 - Childcare
 - Family services
- ✓ Flexible time arrangements
- ✓ Teleworking
- ✓ Recruitment efforts
- ✓ Career planning
- ✓ Flexible career arrangements

WANTED: MORE WOMEN IN COMPUTER SCIENCES

Despite the fact that Microsoft came top in the *Sunday Times* newspaper's survey of the 100 best companies to work for in Britain in March 2003, only a meagre 8% of researchers at its Cambridge Research Centre are women.

The Centre's founder and former managing director, the late Professor Roger Needham, put the blame squarely on the small number of female PhDs in computer science and related subjects coming out of European universities. "We have made offers to every woman we've interviewed," he explained, "compared with about 40% of the men. All non-Americans have accepted, but no Americans. Of our four women researchers, two are British, one French and one Yugoslav."

Professor Needham compared the centre to the nearby University Computer Laboratory, where a higher proportion of women in natural language and related topics reflected a generally higher female participation in this branch of computer science.

TAKING INITIATIVES

Microsoft's efforts to recruit more women and keep them in the company are reflected in a variety of initiatives in different countries, ranging from the 'DigiGirlz' high-tech camps for girls in the USA and participation in the annual Take Our Daughters to Work Day to onsite nursery or voucher schemes and flexible working in the UK.

Maxine Edwards started work as a graduate trainee at Microsoft UK's main Reading 'campus' in 2001. "We work long hours, but it doesn't feel like work most of the time," she says. "One of our directors sent an e-mail saying he doesn't want to see us after 6pm. I've never heard of anything like that before."

Microsoft moved from second place in 2002 to top the 'best company to work for' poll in 2003, on the strength of workers' votes. The survey among over 200 UK firms

MICROSOFT RESEARCH LTD (UK) in figures

TOTAL NUMBER OF RESEARCHERS: 50

WOMEN RESEARCHERS: 4 (8%)

TOTAL NUMBER OF EMPLOYEES: 71

ANNUAL TURNOVER: €15 million

R&D INVESTMENT: €15 million

WORLD HQ LOCATION: Redmond, USA

NUMBER OF R&D LOCATIONS:
1 – Cambridge Research Centre

PATENTS: Microsoft Research UK filed
about 20 patent applications in 2002
Women played a part in developing 4 of them

Data 2001

also revealed that women are generally more satisfied at work and get on better with their colleagues than men do.

In the USA, Microsoft regards diversity as a 'core value' of the company. "A more diverse workforce makes for better decision-making and a varied approach to product development," explains senior technical recruiting account manager Joel Graves. "Simply put, we need more women in our technical divisions."

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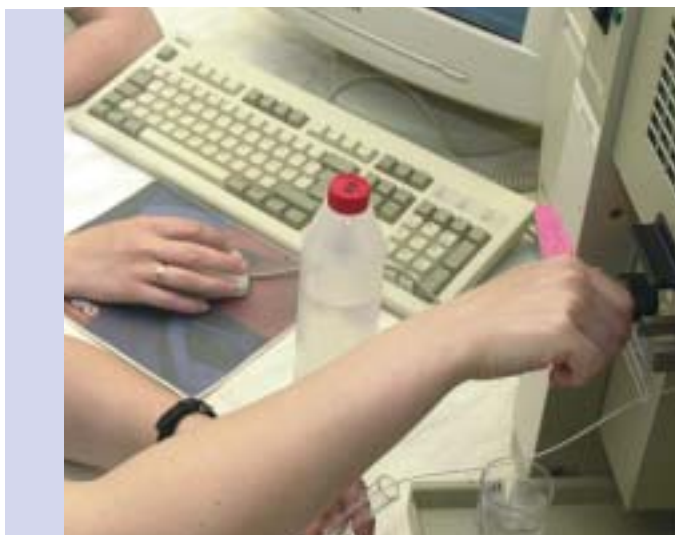
Information:

www.research.microsoft.com

Microsoft®

Specific measures

- Regular monitoring by top management
- Objectives for top management
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- Special training/coaching for female high potentials
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- ✓ Recruitment efforts
- Career planning
- Flexible career arrangements



NICE WORK IF YOU CAN GET IT

With women making up 24% of its researchers, Outokumpu Research Oy goes some way towards reflecting the relative egalitarianism of Finnish society in general. Five of the company's 18 research managers (28%) are female, and women have been involved in developing almost one-third of the innovations leading to new patent applications over the past year. Four new female researchers have been recruited since 2000.

Support for women in technology at Outokumpu Research Oy goes back a long way. In September 1989, a group of women engineers decided that unity is strength, and set up their own network, known as NICE – an adaptation of the Finnish for ‘woman’, *nais* – which they felt reflected the welcoming nature of the group.

With the support of the company management, NICE has organised meetings and excursions, as well as social events including Christmas lunches, museum visits and sauna evenings. Recently, the members visited Finland's second-largest nuclear power plant, located in nearby Olkiluoto, where they met one of the country's top nuclear technology experts: a woman.

LOCAL CONTACTS

In 2001, NICE hosted a two-day seminar for all the Outokumpu Group's 54 female engineers. The event not only allowed for broader networking, it also enabled the participants to study company policy in areas like environment, patenting, legal issues and quality certification.

Through the NICE network, women at Outokumpu Group get the opportunity to deepen their knowledge of local industries, as well as offering one another mutual support in what is traditionally the ‘man's world’ of engineering. As one member points out, “That helps us to cope with every day work, and life itself.”

INTERVIEW

ROLE MODEL IN ACTION

Outokumpu Research Oy is the research and product development centre of the Outokumpu Group, specialising in metal and metallurgical technologies. With 32 years' working experience at Outokumpu Research Oy behind her, Leena Lehtinen is one of the company's top women researchers, holding the title of senior research metallurgist in zinc metallurgy.

She believes that women in her position must set an example as role models for younger female colleagues. It was Lehtinen who, together with Outokumpu Research's most senior woman researcher Marja Riekkola-Vanhanen, set up the NICE network over a decade ago. “I believe we cooperate much more easily and more often with each other than we did before,” she says. “It has been a good way for new female researchers to get to know others, and we have had many opportunities to visit Outokumpu plants and other companies where it would otherwise not have been possible to go.”

Lehtinen first joined Outokumpu as a student trainee. She enjoyed the experience so much that after graduation she applied for a job vacancy, and got it. “I knew there were already other women who had studied at the same place as me working for Outokumpu,” she explains. Although the company does not apply special measures to promote women, she enjoys the wide range of opportunities open to female researchers, including temporary postings at different production plants. She would like to see more women joining the company, and suggests that one way to achieve this would be to have more female staff in the recruiting sector.

OUTOKUMPU RESEARCH OY in figures

TOTAL NUMBER OF RESEARCHERS: 78
WOMEN RESEARCHERS: 19 (24%)
NEWLY RECRUITED FEMALE RESEARCHERS: 2 (22 %)
WOMEN IN RESEARCH MANAGEMENT: 5 (28%)
TOTAL NUMBER OF EMPLOYEES: 188
ANNUAL TURNOVER: €10.83 million
R&D INVESTMENT: €554,000
HQ LOCATION: Pori, Finland
NUMBER OF R&D LOCATIONS: 1
PATENTS: Women inventors are registered for 6 of Outokumpu's 21 patent applications in 2002
Data 2002

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Information:

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Specific measures

Regular monitoring by top management
Objectives for top management
Awareness-raising measures for the management, project leaders, etc
Mentoring internal/cross mentoring programmes
Special training/coaching for female high potentials
Women's network
Diversity groups
Childcare
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✓ Flexible time arrangements
Teleworking
Recruitment efforts
✓ Career planning
✓ Flexible career arrangements
Others

WIN-WIN WORK ORGANISATION

“We want flexible working conditions which enable employees, their families, and the organisation to balance in a functional and satisfying way,” said former CEO Egil Myklebust in Norsk Hydro’s 1997 Action Plan for Gender Equality. This principle underlies the personnel policies of the Norwegian-based company, which operates in 70 countries in three main business areas: oil and energy, light metals, and fertilisers.

Norsk Hydro, established in 1905, launched its first equal opportunities action plan in 1984 and has carried out extensive research into gender and diversity issues in the company. The firm has backed initiatives by the Confederation of Norwegian Business and Industry (CNBI) such as Project Discovery, a unique mentoring scheme linking men and women from both the public and private sector with the aim of increasing the visibility of the many well-qualified women, and thereby raising the proportion of women in senior positions. By 2001, 230 ‘couples’ had completed the programme.

The company launched its Hydroflex project with four slightly different flexiwork pilot schemes starting in 1998. The purpose was to identify win-win solutions aimed at tackling some of the problems and dilemmas that surround modern work organisations. Companies working globally have to be accessible 24 hours a day. Families need to accommodate dual careers – with both mothers and fathers carrying out demanding jobs – and meet the associated challenge of avoiding early burnout from too many pressures.

SATISFACTION ALL ROUND

This pilot scheme concluded that changes in work organisation could at the same time make the company more effective and give employees a better balance between work and family or leisure.



Norway has a traditionally egalitarian society, with publicly provided childcare facilities and relatively generous maternity and paternity leave. Over 75% of fathers take at least four weeks’ paternity leave. In October 1999, 20% of researchers in business and industry with university degrees were women, and 17% of those with PhDs.

Over the last ten years the proportion of women in Norsk Hydro’s senior management has increased significantly. Some years, the company has recruited more female researchers than male. The company sets out always to select the best candidates, and the number of women recruited approximately reflects the proportion graduating within relevant disciplines.

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NORSK HYDRO in figures

TOTAL NUMBER OF RESEARCHERS: approx 1,000

WOMEN RESEARCHERS
(Norway): 27%

TOTAL NUMBER OF EMPLOYEES: 42,615

ANNUAL TURNOVER:
approx €20 billion (163 billion NOK)

R&D INVESTMENT:
approx €130 billion (1 billion NOK)

HQ LOCATION: Oslo, Norway

NUMBER OF R&D LOCATIONS: 11,
mainly in Norway

PATENTS: Norsk Hydro filed 90 patent applications in 2001, at least 14 of them involving female inventors. In 2002 there were 70 applications, of which at least 9 were partially developed by women

Data 2002

INTERVIEW

A VISION FOR THE FUTURE

The 'best practice' and the most effective actions are those taken at the right level. "If governments don't do it, companies have to pick it up. If companies don't do it, parents – most frequently mothers – have to pick it up," points out **Dr Ragnhild Sohlberg**, Vice-President at Norsk Hydro's Corporate Centre.

"Governments should take responsibility for creating the infrastructure – laws and regulations, childcare facilities, maternity and paternity leave, etc – while companies should take responsibility for personnel policies allowing for flexible work, part-time working and so on." Dr Sohlberg is very active at the EU level as Scientific Secretary of the European Research Advisory Board (EURAB) and joint chair of the European Commission's Women in Industrial Research (WIR) High Level Expert Group.

"In the Nordic countries we have relatively good public infrastructure, and fathers are increasingly taking part in all facets of family life," she explains. "Consequently, the female workforce-participation rate is high, and career women in Norway and Sweden are more likely to have a third child than non-career women. We are not completely there yet, but in this context we are ahead of most countries."

She sees good practice examples as 'ideas' which governments and companies can adopt or adapt if and when appropriate. "It's the results that count," she adds. Her vision for the next decade is one of companies with democratic values, in which employees – men and women – can apply their talents, express their views, be listened to and be shown respect. "Top management commitment is crucial," she insists. "If we do all this, then we will have a Europe that gets 'first prize' in 2010 – but it requires a concerted effort."

INTERVIEW

EQUALITY AT HOME AND AT WORK

"I think young women in Norway now at the start of their careers take it for granted that they will have equal opportunities to men," says **Elin Kulås**, a senior research scientist at Norsk Hydro's Research Park in Porsgrunn, Norway.

But despite this progress, she acknowledges that men still hold the majority of senior positions in her company, as in most others. Kulås works as an expert in the chemistry of fats and oils, leading to the manufacture of concentrates of omega-3 fatty acids for health supplements and pharmaceuticals, at Hydro Pronova. Employed by Norsk Hydro for ten years, she obtained leave of absence to carry out a PhD at Dalhousie University in Canada. "Norsk Hydro was very helpful when I decided I wanted to do this," she says. "I find the company very supportive to women in research."

Kulås has combined her career with having two children – now one and four years old – and a husband away working a fortnight at a time on oil platforms, also for Norsk Hydro. "I do not find it difficult to combine a career and family," she affirms, "but at times it can be challenging and a bit stressful when children are as young as mine are."

Changing attitudes among men at all levels are key. "It is more and more common now for men to take parental leave or reduce their working hours, especially in large firms. That's the next stage towards equal career opportunities." Better family relations are just one of the benefits of fathers taking a greater role in childrearing, she argues. "It is important that, when hiring new people, companies realise that they 'risk' losing them for some time to parental leave, regardless of their sex. Men that have taken some leave are more involved in family life when it is over, so the mother can more easily put in extra hours at work when needed."

Kulås returned from her second period of maternity leave in May, and now works 80% time, adapting her working hours according to her husband's absences. "I can be very flexible, and I appreciate this flexibility," she explains. In line with Norwegian legislation, Norsk Hydro offers up to ten days paid leave annually for both mothers and fathers to look after sick children, and this can be extended on an unpaid basis. "What is more, this is a very well accepted reason for not showing up at work," she adds. "Noone questions it at all."



SCHERING WORLDWIDE in figures

TOTAL NUMBER OF EMPLOYEES: 26,635

ANNUAL TURNOVER: €5,023 million

R&D INVESTMENT: €947 million

HQ LOCATION: Berlin, Germany

NUMBER OF R&D LOCATIONS: 10 – Berlin, Jena, Germany; Turku, Finland; Saclay, France; Richmond/California, Seattle/Washington, Indianola/Pennsylvania, Londonderry/New Hampshire, USA; Osaka, Mobarra, Japan

SCHERING AG, GERMANY

TOTAL NUMBER OF RESEARCHERS: 480

WOMEN RESEARCHERS: 140 (29%)

NEWLY RECRUITED FEMALE RESEARCHERS: 14 (31%)

WOMEN IN RESEARCH MANAGEMENT: 27 (17%)

TOTAL NUMBER OF EMPLOYEES: 8, 373

Data 2002

Schering's equal opportunities policy is long established. In 1973 the company opened its in-house daycare centre for employees' children. The Policy Unit for Women's Affairs was set up in 1990, and first concentrated on advancing the careers of woman in the company. Since 1995 it has focused more on promoting an open dialogue between male and female staff. It also engages in helping men and women to cope with the conflicting demands of career and family.

Schering supports the promotion of female management trainees by recruiting more women in the natural sciences and engineering and an internal mentoring programme.

In March 2003, it was the first company to win the European Commission's new Gender Equality at the Workplace award, and in 1997 and 2000 Schering received the German Total E-Quality award (see page 28).

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THE EXPLORATION OF TIME

Almost 30 years ago, Schering introduced its first flexitime scheme for its employees. Since then, the German company, which specialises in developing new medical solutions for specific health problems, has expanded the range of opportunities for managers and employees to plan the working hours.

ProduktivZeit is a new scheme based on annual working time for individual staff members, in which working hours are planned carefully with the team and the employee's supervisor to ensure that the needs of the customers are met. Part-time and teleworking are also possible, and according to the company these options improve the productivity and the motivation of employees.

Specific measures

- ✓ Regular monitoring by top management
- Objectives for top management
- ✓ Awareness-raising measures for the management, project leaders, etc
- ✓ Mentoring internal/cross mentoring programmes
- ✓ Special training/coaching for female high potentials
- ✓ Women's network
- ✓ Diversity groups
- ✓ Childcare
- Family services
- ✓ Flexible time arrangements
- ✓ Teleworking
- ✓ Recruitment efforts
- ✓ Career planning
- Flexible career arrangements
- Others

IT STARTS WITH RECRUITING

In order to change the culture of a large organisation, you have to plan for a long lead time. The leader in Oilfield Services, Schlumberger has combined gender and nationality diversity in its recruiting and is now reaping the benefits.

"Transforming the gender culture of a company can take 20 years," says Schlumberger's Vice-President, Global Personnel Practices, Pierre Bismuth. "Therefore it's worth starting early. Industrialists are slow to realise that access to a larger and more diverse pool of talent gives you a key competitive edge."

Several ingredients are needed to turn a company culture around. "First, top management must be committed. They know all of the obstacles because they were once part of the resistance! Secondly, the company has to convince women

that they have good career opportunities, and to do this it must clearly address them as potential talents. Thirdly, it must adapt its policies and procedures – and above all it must introduce career flexibility. Most of the adaptations are excellent for men and women. For instance, our staff assessments now include relevant information on employees' personal lives. Employees can choose to have their spouse's career needs taken into account, or not." Actions on spouses led to the creation of Partnerjob.com (see page 27) and the Schlumberger Spouse Association.

PLAN AHEAD

What are the results? "Parity between the sexes is still a long way off, but today, women make up 20% of our pool of talent. And if the current trend persists, by 2010 women will be holding over 20% of Schlumberger's

management posts,” says Bismuth. In R&D, 40% of new employees are women – and 45% of recruiters are women. It takes time for this transition to occur because women have to rise up into management levels.

“Schlumberger means to carry on the good work,” he adds. “In 2002 the company hired nearly 1,200 women, six times as many as in 1994. That’s progress.”

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Information: <http://www.slb.com>

INTERVIEW

A PASSION FOR SCIENCE

*“I was always attracted to science in general,” says **Barbara Zielinska**, from Poland. “My father, who is a chemist, had a big influence on me. He imprinted on me that learning and accumulating knowledge were very important. Growing up in communist Poland, the best investment parents could give their children was a good education, therefore my father held science and learning in the highest esteem.” Zielinska joined Schlumberger in 1989, with a PhD in physics from Leiden University in the Netherlands, and became involved in designing static water and gas meters. She already had experience of post-doctoral research in Israel, France and Germany, working on hydrodynamic stability and phase transitions. “At the end of high school I proceeded by elimination,” she explains of her career choices. “The medical profession seemed to me to be full of responsibilities that I was not ready to assume. Engineering was too full of ready-to-use formulae, and I wanted to understand the true basics of things. So it was physics that attracted me most.”*

In January 2002, Zielinska became a section manager in the technical support department of the company's Product Centre in Houston, Texas. “I became really interested in technology after I joined Schlumberger, and I found a passion for it,” she reveals. “Now I want to understand not merely how things work, but also how they can work better and cheaper.”

INTERVIEW

SCHLUMBERGER DIVERSITY - THE NEXT STEP

*Diversity in Schlumberger is a never-ending story that began with the founding of the company. Although the company was predominantly European and American until the 1970s, things changed rapidly shortly thereafter. In the late '70s, Schlumberger decided to diversify its population by hiring engineers and scientists from over 70 countries in which it worked. In the mid '90s, Schlumberger began to combine this nationality diversity with gender diversity. Schlumberger's Vice-President of Global Personnel Practices, **Pierre Bismuth** affirms, “Today we have access to the whole world of talents and our top performers in the Oilfield – employees that mirror Schlumberger's overall diversity - are from 94 different nationalities and 19% are women.*

“Our central goal is to develop these talents on the same terms and present them all with the same range of career opportunities. To make this happen a company needs to have HR systems that are truly global in their design, and a management group that is ready to take risks on individuals based on their skills and potential. As this progress is made, we are meeting new challenges – specifically with respect to gender diversity. Important issues that have arisen, among others, include the management of dual careers, the attention careers require following maternity leave, and enabling couples to share family responsibilities.

“Change is a long process,” Bismuth recognises. “It took 20 years for Schlumberger to achieve global diversity right to the top. We need scientists and engineers from all backgrounds. We will not succeed if we don't have talent from all countries – and certainly both male and female. It's obvious, yet there is resistance to it. Stereotyped opinions establish barriers between women and employment.”

Firms need to build a ‘critical mass’ of female staff in order to transform the workplace ethos, he explains, and Schlumberger has gone from 1,500 to 10,000 women employees. Action has focused on recruitment methods, especially on university campuses. “We had to change the way we were talking to women. We realised our recruiters were showing students pictures that excluded women – we were scaring them away in a subtle way.” Schlumberger now takes account of workers' individual career objectives. “Integrating women is the best thing that can happen to men. The first people who benefit when we open the company up to talking about people's lives are the men.”

SCHLUMBERGER WORLDWIDE in figures

TOTAL NUMBER OF RESEARCH ENGINEERS: 3,308

WOMEN RESEARCH ENGINEERS: 614 (19%)

NEW FEMALE RECRUITS IN RESEARCH: 56 (40%)

WOMEN IN MANAGEMENT: 47 (9%)

TOTAL NUMBER OF EMPLOYEES: 78,500

ANNUAL TURNOVER (revenue): €12,000 million

R&D INVESTMENT: €600 million

HQ LOCATIONS: New York, USA;
Paris, France; The Hague, Netherlands

NUMBER OF R&D LOCATIONS: 23 centres worldwide - 8 in Europe: Abingdon, Cambridge, Gatwick and Stonehouse, UK; Clamart and Grenoble, France; Oslo and Stavanger, Norway

Data 2002

Specific measures

- ✓ Regular monitoring by top management
- ✓ Objectives for top management
- ✓ Awareness-raising measures for the management, project leaders, etc
- ✓ Mentoring internal/cross mentoring programmes
- Special training/coaching for female high potentials
- ✓ Women's network
- Diversity groups
- ✓ Childcare
- ✓ Family services
- ✓ Flexible time arrangements
- ✓ Teleworking
- ✓ Recruitment efforts
- ✓ Career planning
- ✓ Flexible career arrangements
- ✓ Others



A GLOBAL VIEW OF WOMEN IN RESEARCH

With over 53,000 researchers (7,400 of them women), Siemens is the most important EU-based R&D company in the world.

Siemens adopted its global *Guiding Principles for Promoting and Managing Diversity* in summer 2001 and included diversity as an integral part of its business excellence strategy. This is reflected in Siemens' Corporate Responsibility report, which complements the annual financial report.

In this context, gender equality has received a new impetus. "Promoting diversity means more than just equal career opportunities for women," says Prof. Dr. Pribilla, Chief Personnel Officer and Labour Director. "We are convinced that technology needs women and that leadership needs women as well. We want to make it easier for women to continue their careers after having children and we aim to be a preferred employer for women."

ON THE RIGHT TRACK

Although it is making progress, Siemens still has some way to go. Women make up 28% of the global workforce, 29% of staff in Europe excluding Germany, and 25% in Germany. The corresponding statistics for management are 8.6% globally, 10.3% in Europe excluding Germany, and 7% in Germany. These figures are set to rise in coming years, since around one-quarter of all new university-trained staff are female. The company's *Promoting Diversity* project furthers this aim. Within this project Siemens has set a special focus on R&D in Germany. The current figures explain this focus: 14% women in R&D and 4.7% in R&D management.

The main reason for these low figures is the extremely small number of female graduates in engineering and science, especially in Germany (e.g. electrical engineering 5%, computer science 11.4%). Siemens is quite successful in recruiting female graduates (6% and 18.2% respectively in 2002), but still the figures remain low. Therefore, Siemens has set up a long-term strategy to influence the choice of disciplines at an early stage. This includes:

- Siemens' Technology Adventure Camps for girls from 15 onwards;
- The Yolante (Young Ladies' Network of Technology) programme coaches over 100 young women annually throughout their technical graduate studies;
- In partnership with other companies and the German Federal Ministry for Technology, Siemens has founded the Femtec programmes of four technical universities.

SIEMENS WORLDWIDE in figures

TOTAL NUMBER OF RESEARCHERS: 53,100

WOMEN RESEARCHERS & ENGINEERS IN R&D: 7,400 (14%)

PERCENTAGE OF WOMEN IN MANAGEMENT: 8.6%

TOTAL NUMBER OF EMPLOYEES: 426,000

WOMEN EMPLOYEES: 118,100

ANNUAL TURNOVER (sales): €84 billion

R&D INVESTMENT: €5.8 billion (7% of sales)

HQ LOCATION: Munich, Germany

EUROPE (EXCLUDING GERMANY):

TOTAL NUMBER OF RESEARCHERS: 12,500

WOMEN RESEARCHERS & ENGINEERS IN R&D: 2,000 (16%)

PERCENTAGE OF WOMEN IN MANAGEMENT: 10.3%

TOTAL NUMBER OF EMPLOYEES: 107,900

WOMEN EMPLOYEES: 31,100

GERMANY:

TOTAL NUMBER OF RESEARCHERS: 30,700

WOMEN RESEARCHERS & ENGINEERS IN R&D: 4,300 (14%)

PERCENTAGE OF WOMEN IN R&D MANAGEMENT: 4.7%

WOMEN IN MANAGEMENT: 2,500 (7%)

TOTAL NUMBER OF EMPLOYEES: 175,100

WOMEN EMPLOYEES: 43,400

Data 2002

TIME FOR FAMILY LIFE

Just as important as recruiting is enabling women to continue their research careers. To help employees balance their work and home life commitments, Siemens offers a range of part-time, flexible and home-working opportunities, and professional childcare support. For example, an Intranet platform helps staff across Germany to locate childcare support. Employees can take time off to care for sick dependents and are encouraged to keep in touch during parental leave (via the regular supply of information, training, and on-line contact if possible).

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<http://www.siemens.com> under the topics 'about us', 'business excellence', 'best people', 'diversity', 'job&careers' and 'Corporate Responsibility report'
<http://www.siemens.de/yolante>

Siemens AG

Energy and communications

INTERVIEW

A PLACE IN THE TEAM

Anja Stockmann has used the opportunities available at Siemens to develop her career in transportation research, before and after the birth of her daughter, Larissa, when she was 27. She qualified as a technical draughtswoman in 1991, but moved on after a year. At Siemens, when her manager Jürgen Alms took on a partial development project Funk Fahren Betrieb (train operation without signals), he asked her if she wanted to join the team. "I went along because it was a unique opportunity for me," says Anja.

She took a year's maternity leave when Larissa was born, before finding her a nursery place and returning to work. Her husband Detlef works full-time as a steel construction fitter. "At home I could never have been able to offer her such a diverse environment," explains Anja, who can also take advantage of flexitime if her daughter falls ill. "Everybody in the division has children and can sympathise."

SIEMENS

Specific measures

- ✓ Regular monitoring by top management
- ✓ Objectives for top management
- ✓ Awareness-raising measures for the management, project leaders, etc
- ✓ Mentoring internal/cross mentoring programmes
- ✓ Special training/coaching for female high potentials
- ✓ Women's network
- ✓ Diversity groups
- ✓ Childcare
- ✓ Family services
- ✓ Flexible time arrangements
- ✓ Teleworking
- ✓ Recruitment efforts
- ✓ Career planning
- ✓ Flexible career arrangements
- ✓ Other: active engagement in diverse programmes and initiatives to encourage young women to pursue studies in technical/engineering/natural sciences fields. For example, Yolante (Young Ladies Network of Technology), Technical Adventure Camps, MINT-EC (see www.mint-ec.de), Ada Lovelace, Femtec).

Telenor ASA

Telecommunications

TELENOR WORLDWIDE in figures

TOTAL NUMBER OF RESEARCHERS: 253

WOMEN RESEARCHERS: 55 (22%)

WOMEN IN RESEARCH MANAGEMENT: 1 (10%)

TOTAL NUMBER OF EMPLOYEES: 23,400

ANNUAL TURNOVER: €6.131 billion

R&D INVESTMENT: €35 million

HQ LOCATION: Fornebu, Oslo, Norway

NUMBER OF R&D LOCATIONS: 5 – Oslo, Tromsø, Trondheim, Stavanger, Agder

PATENTS: Women were involved in developing 3 of Telenor's 8 patent applications in 2002

Data 2002

PROGRESSIVE SOCIETY, PROGRESSIVE COMPANY

Even when they operate in a range of markets outside their home country, many companies remain true to their domestic culture and standards. Telenor is Norway's biggest telecoms operator, with interests in both mobile and fixed communications, but today around one-third of its turnover is outside its home state, principally in the Nordic region and other European countries, with some mobile activity in South East Asia.

Despite not having implemented specific measures to develop participation by female researchers, 22% of Telenor's researchers are women. To some extent this can be attributed to Norwegian legislation: the Gender Equality Act aims to ensure equality between men and women, and was adopted to improve the position of women in Norwegian society; and the National Insurance Act provides economic assistance to people unable to work, including the right to one year off work for maternity leave. Telenor is also party to a collective agreement whereby maternity pay amounts to the total level of the employee's salary.

Telenor's R&D department runs five in-house research laboratories in different Norwegian cities, although much of its work is done in collaboration with outside agencies, both Norwegian and international. Many such collaborations are in EU-funded projects, while the R&D department also takes the lead in Telenor's contributions to standardisation bodies, a crucial factor for an international telecoms supplier. That said, the R&D department represents just 1% of all the group's employees, and R&D investment amounts to just over one 200th of the group's turnover. Whilst women account for 22% of all research staff, just one of ten research managers is a woman.

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Information:

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ASAC Pharma

Pharmaceuticals

ASAC PHARMA in figures

TOTAL NUMBER OF RESEARCHERS: 15
NUMBER OF WOMEN RESEARCHERS: 3 (20%)
WOMEN IN RESEARCH MANAGEMENT: 1% of programme managers, 4% of department heads
TOTAL NUMBER OF EMPLOYEES: 236
ANNUAL TURNOVER (revenue): €17.41 million
R&D INVESTMENT: €3 million
HQ LOCATION: Alicante, Spain
NUMBER OF R&D LOCATIONS: 5
Data 2001

ASAC Pharma is a small biotechnology research company in Alicante, Spain.

Women make up 20% of ASAC's researchers, and in 2001 the only new recruit to the team was female.

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www.asac.net



Printing and document management

OCE in figures

TOTAL NUMBER OF RESEARCHERS: 1,840
PERCENTAGE OF WOMEN RESEARCHERS: 6% (NL)
TOTAL NUMBER OF EMPLOYEES: 21,500
ANNUAL TURNOVER (revenue): €3.2 billion
R&D INVESTMENT: €220 million
HQ LOCATION: Venlo, the Netherlands
NUMBER OF R&D LOCATIONS: 6 – the Netherlands, Germany, Belgium, France, USA
Data 2001

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www.oce.com

SUEZ Lyonnaise des Eaux

Energy/water

SUEZ Lyonnaise des eaux in figures

TOTAL NUMBER OF RESEARCHERS: 520
NUMBER OF WOMEN RESEARCHERS: 200 (38%)
NEWLY RECRUITED FEMALE RESEARCHERS: 5 (50%)
WOMEN IN RESEARCH MANAGEMENT: 1 department head (25%); 2 programme managers (8%)
WOMEN IN SENIOR MANAGEMENT: 6%
TOTAL NUMBER OF EMPLOYEES: 188,050
ANNUAL TURNOVER (net income): €2 billion
R&D INVESTMENT: €250 million
HQ LOCATION: France
NUMBER OF R&D LOCATIONS: 10
Data 2001

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GIRLS' DAY – FUTURE PROSPECTS FOR GIRLS



Germany's annual Girls' Day on 8 May 2003 enabled some 100,000 teenagers to see what a career in science and technology really means, through visits to more than 3,905 research centres, companies and offices.

The number of girls choosing typically 'female' careers or study subjects is still disproportionately high, and many fail to explore all their career options. At the same time, trade and industry complains about a growing lack of qualified junior staff in the technical field. Yet companies that have successfully organised Girls' Days are reporting an increasing number of young women in technical occupations.

The scheme was launched in 2001 with the support of the federal government, trade unions and industry, to encourage qualified young women to tackle jobs previously thought of as male strongholds. Almost half of the 40,000 11- to 15-year-olds who took part in Girls' Day 2002 subsequently expressed an interest in science and technology studies.

Over the years, media interest has increased enormously, and millions of people have visited the Girls' Day website. In 2003, German Chancellor Gerhard Schröder took an active role, demonstrating that harnessing young women's talents is crucial to European economic growth and development.

Girls' Day enables all participants to win. The organising institutions and enterprises gain top personnel resources for the future, while girls overcome prejudices about technical jobs. But boys can also be on the winning side, through the opportunity to talk more openly about career choices and gender bias in professional life.

Information:
www.girlsday.de/

TAKE OUR DAUGHTERS TO WORK

The Take our Daughters to Work scheme was launched ten years ago in the USA, to help girls reach their full potential by opening their eyes to jobs and careers they might never have thought of.

In the UK, the annual event is organised by the Girlguiding movement, and in 2003 the day in question was 3 April. Many leading companies, including BP, British Telecom, Whitbread, Barclays, the BBC and local authorities not only encouraged staff to bring their daughters to work with them but also laid on special activities.

The aim is to enable girls at school to discover a whole range of opportunities outside the traditional 'female' sectors. "They could research new medicines, design a baby incubator, be in charge of all the electricity transmission for a whole region of the UK – even construct a dam in Africa for drought relief," say the organisers.

In the USA, the programme was relaunched on 24 April 2003 as Take our Daughters and Sons to Work. Why the change? "For girls to be able to achieve their full potential, boys must also be encouraged to reach their potential by participating fully in family, work and community," explain the organisers. "While we were creating opportunities for girls and women, men were thanking us for making a day when they could be 'public fathers' in the workplace."

Information:
www.girlguiding.org.uk/daughters/article.asp?masterID=3§ionid=28
www.daughtersandsonstowork.org

MOVING IN HARMONY

One effect of female emancipation is that more and more couples comprise two career-minded individuals. What an advantage – particularly for any children in the family – if, when one partner makes a move abroad, the other can find a job nearby as well. This is exactly the service offered by Partnerjob.com, a non-profit association set up in 2000 by multinationals Air Liquide, Areva, Danone, Hewlett-Packard, Onco, Rhodia, Schlumberger and Thales.

The site hosts a list of posts available in its member companies, and 'trailing spouses' can either apply for them direct, or post their own CV on the site for recruiters to view. There is also an online forum, which allows users to share tips and experiences.

Partnerjob.com gives its member companies a broader choice of candidates for their positions, and takes a major worry off employees' minds – thus increasing the chances of a successful posting.

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www.partnerjob.com

Awards and ranking schemes

REAPING THE REWARDS

The Total E-Quality award is one effective way of drawing attention to company personnel policies that turn equal opportunities for women into reality.

A group of representatives from German employers and trade unions set up the scheme, launched in summer 1996, with support from the German government and the European Commission. It rewards companies that take steps to open up opportunities for professional development and promotion to women, and show they are serious about putting women into leading positions and realising equal opportunities.

Applying for the Total E-Quality award is voluntary. The application is based on a self-assessment checklist by the applying organisation, including a collection of gender-segregated data on employment. An independent jury assesses the applications.

Award winners receive a certificate and the right to use the Total E-Quality logo for marketing and public relations purposes, i.e. in job advertisements. With this, the company sends out the signal that the promotion of women is a central concern. After three years, the organisation has to reapply.

After the success of the award for business organisations, community agencies and associations, the German Ministry of Education and Research funded a project to develop the checklist for use by universities and other scientific institutions, and the first of these awards were made in 2002.

For international organisations, only the German branch gets the award, but checklists could be developed for other countries.

Information:

Total E-Quality Association and business award: www.total-e-quality.de

Scientific institutions: www.cews.uni-bonn.de/total-e-quality

Several different schemes now exist on a national and international level to highlight firms in different sectors that are promoting their competitive edge and corporate image by taking serious responsibility for developing the potential of their entire workforce – both male and female. Newspapers and specialist publications are active in surveying companies' performance in this field. Among those that publish regular data are *The Scientist*, *Fortune* magazine, the *Sunday Times*, and *Computerworld*. In March 2003, the European Commission also announced its first-ever list of the 100 Best Workplaces in the EU, drawing on almost 125,000 completed staff questionnaires.

PREVIOUS TOTAL E-QUALITY WINNERS INCLUDE:

- Aventis Pharma Deutschland GmbH, Frankfurt am Main
- BASF AG, Ludwigshafen
- Bayer AG, Leverkusen
- Commerzbank AG, Frankfurt am Main
- Deutsche Bank AG, Frankfurt am Main
- Deutsche Lufthansa AG, Frankfurt am Main
- Deutsche Telekom AG, Bonn
- DuPont de Nemours, Werk Östringen
- IBM Informationssysteme GmbH, Stuttgart
- Johnson & Johnson GmbH, Wuppertal
- Procter & Gamble GmbH, Schwalbach am Taunus
- Robert Bosch GmbH, Werk Ansbach
- Schering AG, Berlin
- Schneider GmbH & Co. KG, Fulda
- Siemens VDO Automotive AG, Regensburg
- Volkswagen AG, Braunschweig
- Volkswagen AG, Wolfsburg



Awards and ranking schemes

THE SCIENTIST READERS' SURVEY

A gulf sometimes exists between companies' public policy statements and their day-to-day management practices, according to some of the research staff who took part in *The Scientist* magazine's latest survey of the best places to work in industry, published in June 2003.

And this problem is especially acute when it comes to equity in pay, hiring and promotion. "The benefits and initiatives instigated at corporate level HR are not fully implemented at company level, leaving a gap between plan and reality," reported one employee in the British office of a major pharmaceutical company.

The survey also revealed the pressures facing researchers in the biotechnology industry, in direct conflict with a more family friendly style of work. "We are being pushed beyond our limits to states of fatigue and breakdown, and extra hours and hard work are not appreciated, but expected," claimed a senior scientist in London.

AstraZeneca (see page 4) topped the poll as the best non-American workplace in the industry.

Information:

www.the-scientist.com/industry/topten.html

THE EUROPEAN UNION'S TOP 100

German pharmaceutical and biotechnology firm Schering won the first EU Gender Equality at the Workplace award in March 2003. Runners-up were Eli Lilly (Belgium), Esy (Finland), and Sara Lee/DE (The Netherlands).

With parallel prizes for lifelong learning and diversity, the award scheme aims to promote best practice and raise the standard of EU workplaces. The European winners are drawn from national lists in each of the 15 Member States.

The EU's list of the top 100 best workplaces included a number of well-known research companies.

Information:

www.eu100best.org

TOP FIVE NON-US COMPANIES FOR SCIENTISTS*

1. AstraZeneca, London, UK
2. Solvay, Brussels, Belgium
3. Acambis, Cambridge, UK, and Massachusetts
4. Serotec Technology, Oxford, UK
5. Novo Nordisk, Bagsværd, Denmark

*includes non-US branches of US-based firms

OPPORTUNITY NOW

Opportunity Now is an employer-led, British organisation aiming to promote gender equality in the workplace. It has an active membership from the private, public and education sectors.

While recognising the moral and legal arguments for equality, Opportunity Now "relies on a compelling business case," says the organisation. "It believes in campaigning through voluntary action, based on enlightened best practice, as the preferred way forward."

In May 2003, Ford Motor Company (see page 12) won the private sector prize at the eighth annual award ceremony, for its "exceptional dedication" and "outstanding initiatives" on gender equality in the workplace. The judges highlighted Ford's European Diversity Strategy, which has brought tangible results, including the first female board member and the promotion of a woman to director-level after her return from maternity leave.

Information:

www.opportunitynow.org.uk/

More information:

Report of the High Level Expert Group:

Rübsamen-Waigman, Helga et al (2003)
Women in industrial research
A wake up call for European Industry.
Available in English, German and French
Luxembourg: Office for Official Publications
of the European Communities
76 pp
ISBN 92-894-4400-2

Study:

Meulders, Danièle et al (2003)
Women in industrial research
**Analysis of statistical data and good practices in
companies.**
Luxembourg: Office for Official Publications
of the European Communities
164 pp
ISBN 92-894-61683-3



See also the website:

<http://europa.eu.int/comm/research/wir>



EUROPEAN COMMISSION

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European Commission

Women in industrial research

Good practices in companies across Europe

Luxembourg: Office for Official Publications of the European Communities

2003 — 32 pp. — 21.0 x 29.7 cm

ISBN 92-894-4840-7

Industry plays a leading role in European research. Every second researcher in Europe is based in industry but only 15% of them are women. That is less than half the proportion of women researchers in academia. And there are great differences between countries and sectors.

Some companies have long experience and have implemented a broad spectrum of good practices to improve the participation of women in industrial research – some have just started. This publication is intended to motivate others to follow their examples.

The headquarters of the following 20 companies and institutions are based in 12 different countries. Four of the companies are SMEs, two have women CEOs, and two are private non-profit research institutions (PNPs).

The data have been compiled with the support and cooperation of:

ASAC Pharma

AstraZeneca

Bekaert Group

Bioalliance Pharma

Biotecnol

DSM (Dutch State Mines)

DTI (Danish Technological Institute)

Ford Motor Company

IBM

Imstar SA

KMU Forschung Austria

Microsoft

OCE

Outokumpu

Norsk Hydro ASA

Schering AG

Schlumberger

Siemens AG

SUEZ Lyonnaise des eaux

Telenor ASA